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ABSTRACT

This report details a study of how inclusive practices for students with disabilities are being developed and implemented in eight countries: Australia, Canada, Denmark, Germany, Iceland, Italy, the United Kingdom, and the United States. The study aimed to describe national, regional, and local policies on inclusion and school-based practices and to identify the key issues involved. The study identified nine major issues in inclusive education: (1) funding models; (2) systems of public accountability; (3) pupil assessment; (4) curriculum development; (5) teacher/student and adult/student ratios; (6) the presence of a classroom assistant; (7) the functioning of support services; (8) the teacher training system; and (9) community and parental involvement. Part 1 of the report presents background information on segregation, integration, and inclusion. Part 2 provides a synthesis of findings from the countries visited. Part 3 presents individual country case studies. Attachments include a special education teacher training survey of 13 countries, information on training professionals to work in inclusive settings, and issues of cost-effectiveness in inclusive and special education. (Contains approximately 150 references.) (DB)

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Inclusive Education at Work

Students with Disabilities in Mainstream Schools

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INCLUSIVE EDUCATION AT WORK

Students with Disabilities in Mainstream Schools

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Foreword

The Centre for Educational Research and Innovation (CERI) at the OECD has since 1978 been a world leader in providing information to policy makers on the topic of including disabled students in mainstream schools. This book provides the most comprehensive and detailed account of inclusive policies and practices ever made in a comparative context, with the aim of providing information relevant to formulating appropriate policies in Member countries and elsewhere.

The case studies reported were carried out by the project director, Professor Peter Evans of the CERI Secretariat, and the chief consultant to the project Dr. Don Labon in full collaboration with the eight countries involved – Australia, Canada, Denmark, Germany, Iceland, Italy, the UK and the USA.

Appendices describe additional work carried out in a wider range of countries on the training of teachers and other professionals, to work in inclusive settings. In addition an attempt to develop a framework for carrying out cost-effectiveness analyses in this area is described.

The work was supported by a generous grant from the Office of Special Education and Rehabilitation Services of the Department of Education of the United States of America. The text was prepared by Don Labon with Peter Evans unless otherwise indicated. The authors would like to thank Dr Serge Ebersold of the University of Strasbourg, France; Professor Phyllis Magrab of Georgetown University, Washington DC, USA; and Professor Klaus Wedell of the Institute of Education of the University of London, UK, for their critical reading and contributions to the text.

The book is published under the responsibility of the Secretary-General of the OECD.

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Currencies ISO Codes

AUD: Australia, dollar
CAD: Canada, dollar
DKK: Denmark, krona
DEM: Germany, mark
ISK: Iceland, krona
ITL: Italy, lira
GBP: United Kingdom, pound
USD: United States, dollar

Summary

Special education systems have developed in order to cater for those children who stretch regular provision to a point where additional resources must be made available to provide the extra support needed for efficient learning. Although this provision began in special establishments, which continue to exist to this day, over the past 50 years there has been a steadily increasing pressure to educate students with disabilities in mainstream schools. Issues of equity and civil rights have been important determinants, but other important influences include changes in parental attitudes, teacher supply and training, better equipped schools, changes to pedagogical methods and the introduction of information technology.

Following the highly influential Warnock Report (1978) compiled in the United Kingdom for the Department of Education and Science on students with special educational needs, it has been widely accepted in many countries that on average between 15 to 20% of students will have special needs at some time in their school careers. This means that in an average class of 30 pupils, between four and six will be in need of special help to access the curriculum at some point during their schooling. It has also been recognised that these figures will vary substantially according to the degree of deprivation associated with the school districts concerned. An examination of the available data (*e.g.* OECD, 1995*a*, 1998) shows how closely these estimates are approximated in many countries. Furthermore, the numbers of students identified are increasing.

This study, carried out between 1995 and 1998, is based on a close examination of how inclusive practices for a frequently excluded group of students with special educational needs (SEN), namely those with disabilities, are being developed and sustained in a sample of eight OECD countries: Australia, Canada, Denmark, Germany, Iceland, Italy, the United Kingdom and the United States. To the extent possible, the same methodology was used in each country. The aims were to describe national, regional and local policies on inclusion and school-based practices and to identify the key issues involved via observations and interviews with policy makers, administrators, teachers and other related professionals, including parents and the students themselves.

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Educating students with disabilities in mainstream schools remains an important goal for many countries and over the past twenty years or so substantial progress has been, although there is still much to achieve. In most countries, a less than useful structural hiatus appears to continue to exist between education and special education systems which may allow neither to benefit fully from the positive features of the other.

While the debate continues about whether or not it is feasible to include all students in mainstream schools, this report concludes that from organisational, curriculum and pedagogical perspectives, given certain safeguards, there is no reason to maintain generally segregated provision for disabled students in public education systems. In fact, the changes to the ways that schools function in areas such as pedagogy and curriculum development, and in how they are supported by outside agencies as a result of inclusive practices seem only to bring benefits to all students; disabled and non-disabled alike. The teamwork that special education and regular teachers can develop, thus effectively reducing student/teacher ratios, and the additional skills brought by special education teachers to the classroom and lesson planning are certainly part of the reason for these advantages.

From the many issues discussed, nine stand out as being of particular significance in developing and sustaining inclusive education:

- *Funding models* for schools and students should not work in such a way as to encourage exclusion. They should work to encourage regular schools to keep students with disabilities in mainstream schools. Moreover, the evidence continues to show that on a per capita basis inclusive systems are generally less costly to operate than segregated systems. The results of efforts to link costs to outcomes differentiated by settings in a formal cost-effectiveness evaluation, although instructive and providing support for inclusion, are still preliminary.
- *Systems of public accountability* for schools, which are of growing importance, should likewise not work in such a way to encourage regular schools to exclude students with disabilities from these assessment frameworks.
- *Pupil assessment* should be school based, individualised, and support the development of improved pedagogies, curriculum differentiation and the development of the necessary teaching materials.
- *Curriculum development* should be school wide, and outcomes based approaches introduced to help to meet the needs of disabled students.
- *Teacher/student and adult/student ratios* need to be reduced through the use of specialist teachers and assistants allied to increased flexibility in class size and composition.

- *The part-time or full-time presence* of a classroom assistant, not necessarily a trained teacher, allocated specifically to enable targeted support to be provided for students with disabilities.
- *The functioning of support services* such as school psychologists and social workers, should be mainly to empower the school and the teachers to become their own problem-solvers and to stimulate the school as a learning organisation, by passing on their skills and supporting, in the first instance, teachers rather than students.
- In the light of the above, *the training systems for teachers and other professionals* appear to be inadequately oriented for preparing trainees for the demands of working in inclusive settings. The paucity of appropriate training would appear to be helping to maintain an unnecessarily high level of segregated provision.
- *Community and parental involvement* is also essential to support disabled students both in the classroom, through the use of volunteers, and at home.

Inclusion is more than a technical process. Behind the concept lies a view of the rights of children allied to a new way of thinking about the goals and methods of education. For education systems inclusion implies the need to reconsider education law and policy holistically for all students, so that the needs of all students can be met. But reforms need to go further to consider also the ways in which support services co-ordinate their work together with education. Closely linked to these considerations, is the need to develop leadership at national and local levels to assist in carrying through the difficult reforms that will be required.

Part 1

Segregation, Integration and Inclusion

Background

Including and educating children with disabilities in mainstream schools is an important policy goal for many countries. This aspiration in itself is a testament to the strength of the democracies in which we live, the humanitarian values on which public education systems are based, our increased understanding of the processes of teaching and learning and our willingness to invest in all our children. The goal of educating disabled students in mainstream schools follows from the acceptance of the rights of the individual to be educated in regular schools. Inclusion is the name given to the process of change in education and support services needed to achieve this goal.

In reality, the Member countries of the OECD are at different stages in their development towards inclusion. Although none has yet constructed a fully inclusive public education system, in some countries, such as Italy, there has been a long pre-occupation with the issue with inclusive education becoming the norm and readily accepted by teachers and parents alike. In others, *e.g.* Germany, its introduction is less advanced and more experimental. For countries which fall into this latter group, the inclusive approach can be seen as a threat both to the livelihoods of those who work in traditional special education provision and to the quality of working life of those in the regular system.

During the growth and development of public education systems, education and special education components have to some extent grown up side by side, rather independently of each other, as workable responses to the self-evident complex educational challenges presented by certain students. Viewed from this perspective, the systemic goal of inclusion is the eventual merging of these two systems, in such a way as not to lose the strengths of either. Thus the inclusive school will adapt itself to the full diversity of ability, learning needs and culture among all the children on roll, meet their needs impartially, and in doing so avoid giving priority to one sub-group, the most able for example, as opposed to another. Thus the school treats those with disabilities as an intrinsic part of its population rather than as a sub-group requiring special treatment. The school's mission for all its children

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includes recognising their rights, helping them in their personal development, and preparing them to take on, as far as their capabilities will allow, their eventual responsibilities as adults.

The development of this process can be illustrated, by way of example, by considering the history of the growth of provision for disabled students in one OECD country, the United Kingdom, where a pattern of development has taken place which would be recognised in many countries.

Historically, education and care for disabled children was rooted in the community, in the churches and charity, and was organised as a protection from exploitation and to provide a service which public education and training systems were unable to offer. In the 19th century, the main recognised disabling conditions, such as deafness and blindness, clearly stemmed from biological impairments. It is therefore perhaps not surprising that as the course of public education for all progressed, biological causes were sought and generalised in attempts to explain why certain other children found difficulty in adapting to schooling and the available teaching methods.

Thus, many children who presented serious adaptation problems to education systems were understood to be suffering from impairments, were medically classifiable and removed *post haste* from regular schools, if indeed they ever entered them in the first place. Under these arrangements, children with severe mental handicaps were no longer offered education. Instead "treatment" was delivered in "training centres" run by the then Ministry of Health where particular curricula were often followed. The close involvement of the health authorities in decisions concerning the education of disabled students is a feature which still exists in many countries today whether they have mainly inclusive or non-inclusive practices.

It is worth noting that it was not until 1970, and following substantial parental pressure, that the law was changed in the United Kingdom bringing all children under the responsibility of the then Department of Education and Science; the first step on the road to full inclusion. The development was, of course, also influenced by international trends. In the United States, for instance, the path was ploughed by the civil rights movement while in Scandinavian countries "normalisation", or providing disabled people with conventional rather than institutionalised environments, was the leitmotif which carried the day.

Since this period there has been growing dissatisfaction with the biological science basis of the terminology, the so-called "medical model", which has been extensively used to describe children with disabilities. The most powerful argument here is that the diagnostic terms which are used such as blind, partially sighted, mentally handicapped and which were used to determine the "treatment" given in the "centres" run by medical authorities are not adequate in determining appropriate educational provision in schools. In looking for a term which emphasised the educational aspects as opposed to the diagnostic categories, the term "special educational needs" is now widely used to provide this very different emphasis (Gulliford, 1970; Warnock, 1978).

The concept of special educational needs (SEN) thus covers a wide range of disability or learning difficulties. It stresses the need to develop a continuum of education support and shifts the causal attribution away from a within child "medical" model to one which stresses the interaction between the child and his/her environment (*e.g.* Wedell, 1980, 1997). It is worth elaborating on this current conceptualisation a little more. The interaction occurs between the balance of strengths and needs of the individual and the balance of relevant resources and deficiencies of the environment in which the individual grows up. The acknowledgement of this interaction has a major determining effect on the way in which the contribution of education is perceived:

- It implies that the needs occur in a continuum of degree as well as a variety of forms.
- That the achievement level attained by an individual at any one point in time offers at best only a partial indication of the further course of his/her development.
- It follows that educational provision must be continually flexible in responding to the student's development and furthering his/her progress. In so far as it is effective, educational provision will itself result in changes in a student's learning needs.
- Educational systems represent only one of the resources which contribute to the development of the student, and educational provision has to operate in collaboration with other available resources.

Under this interpretation, the need for special education reflects an imperfectly working general education system, and this point was central to the Salamanca Declaration (UNESCO, 1994). The Salamanca statement has as its base the UN declarations on human rights, strengthened by the 1990 World Conference on Education for All to ensure that right for all regardless of individual differences. These agreements have been reinforced through the adoption of the 1993 UN Standard rules on the equalisation of opportunities for persons with disabilities which urge nations to ensure that the education of persons with disabilities is an integral part of the education system. But the Salamanca Declaration goes further by proclaiming:

> "... the necessity and urgency of providing education for children, youth and adults with special educational needs within the regular education system(...). Regular schools with this inclusive orientation... provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system."

Thus what is at stake here is much more than a technical matter. The current policy context stresses the human rights issues and their implications for educational innovation and reform. Some of the implications have been explored in recent CERI studies covering disabled and at risk students (*e.g.* OECD, 1995*a*, 1995*c*). They include the following:

- That integration follows from the acceptance of the individual's rights to optimal personal development and for the opportunity to become an accepted and contributing member of society.
- The dilemma which communities face in achieving an equitable allocation of the limited available resources for realising these rights for those with disabilities.
- The economic recognition that failure to allocate resources during the disabled person's earlier developmental stages may result in greater demands on the community's resources during later stages.
- The recognition that the education system has a potentially crucial preventive role, as well as helping individuals towards the realisation of their rights.
- The finding that in many OECD Member countries, current education systems are functioning in a way which leaves a significant proportion of children and young people unable to obtain access to their rights and to achieve the capacity to make their contribution to society. The education systems are evidently not sufficiently responsive to the diversity of the development and learning needs of the children and young people they are intended to serve.
- The contribution of education systems has to be seen in the context of the contribution which other statutory and voluntary services should also be making to children and young people and their families. Services need to make a contribution not only across the span of an individual's development, but also within the actual and potential contribution of the individual's family and community.

We have then a situation in which education systems have evolved over the course of this century, without having to cater for children who challenge either their orthodoxy or structure or functioning. The regular education system has become institutionalised into being able to put their problems to one side in separate, generously funded and often very attractive segregated provision. But they are systems which many parents, professionals and students with disabilities see as unreal, prejudicial, stigmatising and unacceptable. Thus the modern concept of inclusion challenges these orthodoxies and presents reform opportunities for the benefit of *all* students.

From integration to inclusion

There has been extensive research work carried out analysing "integration" as a concept as well as of its impact on students. The outcome of this work has been to emphasise integration as a process moving from special school provision to integration in full-time mainstream classes (*e.g.* Hegarty *et al.*, 1981), or being locational (in the same building), social (during non-academic time-tabled periods – *e.g.* breaks or sports) or functional (in the same classroom following the same curriculum) (Warnock, 1978). In 1995, at OECD, the social element emphasising the interaction between disabled and non-disabled students was stressed (OECD, 1995*a*). The work also shows the beneficial effects on all students disabled and non-disabled alike (*op. cit.*).

In addition some researches have been carried out in order to compare the costs of different forms of provision. In general terms, integrated provision is usually either less expensive than or as equally costly as segregated provision (OECD, 1994, 1995*a*). A full formal cost-effectiveness analysis linking costs to outcomes is yet to be undertaken (*e.g.* see Levin, 1998) but evidence from pilot studies would suggest that should such a study, trading costs against educational outcomes, be carried out, integrated provision would prove to be more cost-effective than segregated provision (see Annex 3). A full analysis would, of course, also seek to include other factors such as social development.

Despite the agreements, developments and results noted above, the process of inclusion remains fragile. For example, in Denmark, where the inclusion movement has been very strong, between the years 1981 and 1988, a statistically significant move away from integration in regular classes in mainstream schools to special class provision in mainstream schools is clearly observable (see the case study on Denmark in this volume). Why this should be so is not easy to explain, but seems to have come about through a conjunction of factors. Parents, when given the choice, and it is an important policy issue of whether there should be a choice, will sometimes choose special to regular class provision especially for more severely disabled children, and this possibility appears to have been facilitated by policies to decentralise educational decision-making. At the same time, integration may have been attributed less importance on the education agenda of the central government, with greater preference going elsewhere, such as to the link between education and the labour market.

Evidence from Colorado in the United States (see the United States in Part 3) reminds us that early integration efforts failed because children with disabilities were placed in settings which were not designed for responding to diversity in the first place. More specifically, it points to the difficulty regular teachers have in preparing adequately for the more disabled student, in the absence of appropriate training and support, which is a further factor militating against integration. As a result, in Colorado, as in other countries, special classes frequently contain the more disabled children.

More recently the term inclusion has been preferred to that of integration and the reasons are contained in the preceding paragraphs. It is not simply a question of a change in terminology. Inclusion goes beyond the integrative idea of assimilating children with disabilities into the existing ordinary school system (*e.g.* OECD, 1994) but it requires instead, changes to the school system itself which, *inter alia*, involve alterations in educationalists' perceptions of children's being, some re-thinking of the purposes of education and a reforming of the system generally, all of which needs consideration in the development of "schools for tomorrow".

Conclusions

The extensive work carried out by OECD and many other organisations and individuals covering practical examples and research analyses provide a substantial if not overwhelming case to support the full integration of disabled children into mainstream schools. But to achieve this, close attention has to be given to the policy frameworks which guide developments in education, such as parental choice, to the way in which schools are organised and funded, and how teachers and students and their families are supported.

The main factors blocking reform to inclusion would seem to be a mixture of lack of political will and human beings' interminable resistance to change. There is, nevertheless, in many countries a move to include children with special needs into mainstream schools, and it is a process which has been followed avidly and described and evaluated in many publications (*e.g.* OECD, 1994, 1995*a*, 1997*c*; McGregor and Vogelsberg, 1998). But it remains a process which is incomplete.

Note on terminology

There is no consistent use of terminology in this area among OECD Member countries. Thus the term special educational needs (SEN) may refer to disabled students only or it may cover a much wider range of students with learning problems with various causes. In this book the term disability is used to refer to students whose learning difficulties are most likely to be due to a biological impairment of one sort or another and to make points which apply to this group in contrast to the broader group with SEN. When the term SEN is used it refers to this broader range of students including those with disabilities.

Part 2

The Countries Visited – A Synthesis

Background

The following sections provide a synthesis of the work carried out between 1995 and 1998 which had the goal of describing a number of working and sustained inclusive systems from the point of view of national, regional and local perspectives. The intention was to gather detailed information and data to inform governments and others on the implications of inclusive educational provision for the organisation of schools and services and their financing. Given the goals of the study, it is inevitable that the examples stress what has proved to be possible in developing inclusive practice. Generalising this information to other countries, or even regions of the same country, raises the question of understanding the different contexts in which inclusion is taking place, which is essential to planning a process of change. Thus, providing both an account of successful inclusive practices and of the contexts should help in this reform endeavour.

In gathering information relevant to this goal, focused studies were carried out in eight countries. In the case of federal structures the studies concentrated on a particular jurisdiction, although all looked at local provision in the context or regional and national issues. A brief account of the methodology used is given at the beginning of each of the country reports. The data gathering schedule used is given in Annex 4. The countries visited were: Australia (the State of New South Wales), Canada (the Province of New Brunswick), Denmark, Germany (the Land of Berlin), Iceland, Italy, the United Kingdom and the United States of America (the State of Colorado). These countries and specific jurisdictions were chosen to reflect the three regions (North America, Europe and the Pacific Area) of the OECD and because of known good practice in inclusion. The detailed country case studies are provided in Part 3.

Successful inclusion of disabled children is dependent on a number of factors operating across the education system as a whole. In the following sections, relevant information is summarised under a number of headings, broadly commensurate with those used to gather information in the preparation of the case studies. They are intended to assist in providing an understanding of the interplay between

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policy and practice related to inclusion from a comparative perspective and continue the work already published by OECD in this area (*e.g.* OECD, 1995*a*, 1997*a*).

Legal and policy frameworks

It is evident from the countries visited, that although they all have policies favouring integration/inclusion they are at different stages on the route to inclusion with differing degrees of commitment.

In all of the countries visited, legal frameworks were operating (essentially based in international human rights agreements) which encourage inclusion and guarantee resources. In some countries there are considerable safeguards. For example in Canada (New Brunswick), school boards are not allowed to refuse disabled children between the ages of 3-21 admission to school unless they can convince the ministry that it is not in the child's best interest. In Italy, the student must be educated in regular classes if the parent wishes it. In Iceland, recent law omits the term special education in an attempt to stress the unity of provision.

In other countries the situation is rather different, where the mandate to educate children with disabilities in ordinary classes is generally subject to certain conditions: for example, if the school could make appropriate provision, if it constitutes the child's least restrictive environment. In New South Wales legislation, the condition is that the provision will not impose an "unjustifiable hardship" on the education authority.

Many countries require the specification of individual education programmes to secure additional resources via a formal assessment procedure, along with a requirement to evaluate their effectiveness. Usually, these programmes are to operate within the framework of the curriculum on offer, but in some instances they may depart from it. Some allow for modifications to assessment procedures and even for the aims of education for an individual to be negotiated. In addition the co-operation of other services *e.g.* health is also encouraged.

General policy frameworks often stress the goals of providing equal opportunities and lifelong learning. But policies implemented in the context of these legal frameworks also vary substantially, both between and within countries. The goal of full inclusion is often sacrificed on the altar of choice, giving freedom to both parents and the education authorities to place children in segregated provision if so desired.

In Australia, for example, while the principle of equity is well established, and while stated policy with respect to special education reflects the principle of placement in the least restrictive environment, there are appreciable variations across States and Territories in the extent to which these principles are put into practice. Even within a single region, statements of intent can vary. For example, within the Australian State of New South Wales, while its equity charter advocated inclusive education, its declared special education policy sets the objective of maintaining a continuum of provision which included special classes and special schools. In other countries, normal education must be organised in such a way as to allow the disabled student to achieve optimal development, while in others the special education provided in regular classes should be seen also to be benefiting non-disabled students.

Clearly, the right legal and policy frameworks must be in place for full inclusion to be possible. In only a small number of the countries visited could it be said that the public education system was truly operating in an inclusive way, with most countries feeling the need to maintain some form of segregated provision either in the form of special classes in regular schools or special schools. In some countries, despite general inclusive policies, segregated provision for students with emotional and behavioural problems was seen as the only recourse to provide a safe environment for the main body of students. It is, however, very interesting to note that in the Woodstock district of New Brunswick in Canada even these very difficult students complete their education in regular schools.

Prevalence of children with special educational needs (SEN) in the countries visited

It is impossible to understand the issues relating to inclusion, in the context of international comparisons, without some appreciation of the variation in the prevalence statistics and different definitions pertaining to special education which, as noted in Part 1, largely come about as a result of the on-going paradigm shift involved in changing from a concept of disability categories to one of SEN.

Table 1 summarises the problem for the countries studied in compiling this report. A more detailed consideration of quantitative data will be available in an OECD report (forthcoming). The first column shows the percentages of children

Table 1. **Percentages of children recognised as having different levels of special need at the time the country was visited**

	% recognised as having special needs	% assessed as requiring individual programmes	% formally assessed and placed in special schools
Australia	12 to 20	2	0.5
Canada	10 to 16	Up to 5	Virtually none
Denmark	13	1.1	0.5
Germany	4.31*	5	4
Iceland	16	7	0.5
Italy	2	2	0.06
United Kingdom	Up to 20	2.9	1.3
United States	12	12	0.6

* OECD (forthcoming).
Source OECD.

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identified by the country as having SEN. According to the national definition adopted this varies from about 2% in Italy to 20% in Australia and the United Kingdom. The second column shows the proportions of children who will need considerable special help in school to succeed and who are provided with individualised educational programmes and the third column shows the proportion in special schools.

It is evident that there is substantial variation between countries in the data in each of these columns. As argued in OECD (1995*a*), given the similarity of health care in the countries sampled, it is unlikely that these differences stem solely from epidemiological differences. They likely reflect also different education policies and practices between the countries with regard to providing additional support for those students perceived to be in need of it. This conclusion is strengthened by the considerable local variability which also exists within countries. In Australia, for instance, the proportion of school students considered to have disabilities ranges from 1.8% in Victoria and Western Australia, through 2.3% in New South Wales, to 5.6% in Northern Territory. In Colorado, with some 10.5% of the school population thought to have disabilities, prevalence at district level ranges from 8% to 14%.

Provision

The provision made for children with SEN is of three different main types. They will be receiving their education either in special schools, special classes in regular schools or in ordinary classes in regular schools. Cutting across this provision will be the extent of time they spend in the different options.

Table 2 shows the variation between the eight countries visited in the use of these three main forms of provision for students with SEN and who have individual education programmes. Given the large variation among countries of students with individual education programmes (see Table 1) the table must be interpreted with caution. With this caveat, some countries *e.g.* Italy, Iceland, Canada (New Brunswick) and the United States have a substantially smaller proportion of students with individual education programmes in special schools.

Assessment

Assessment of children thought by their parents and/or teachers to fall within this more specific group was formal, individual, and usually took some account of cognitive ability, attainments in basic subjects, sensory and motor skills, health, and social and emotional development. It was often multi-disciplinary, involving teachers, psychologists, medical practitioners and social workers. In Iceland, for example, to become eligible for disability funding a student must have been diagnosed by one of the recognised national diagnostic institutes. Increasingly, there was a tendency for parents to be involved at least on a consultative basis and often as members of multi-disciplinary teams.

Table 2. **Percentages of students with individual education programmes in different placements**

	Percentage in individual education programmes	Ordinary school		Special school or unit
		Ordinary class	Special class	
Australia	2	45	27	28
Canada (New Brunswick*)	5	100	0	0
Denmark	1.1	22	32	46
Germany	5	20		80
Iceland	7	87	6	6
Italy	2	97	3	
United Kingdom	2.9	46		54
United States	12	95		5

* Anglophone districts.
Source: OECD.

Where inclusive education appeared to be at its most successful, much of the assessment and much of the formulation of individual education programmes were undertaken by staff of the ordinary school. Decisions as to the extent to which children on individual education programmes in ordinary schools should remain in ordinary classes or be in special classes on a part-time or full-time basis were also made largely at school level. There was, however, invariably an element of monitoring by external professionals, usually by people appointed at district level, who were instrumental in conducting the formal assessments and in advising administrators on the resources needed to implement the agreed programmes.

The professionals conducting formal assessments invariably play a key role in day-to-day decisions as to which of the children requiring individual education programmes should be placed in special schools. One of their main functions was often that of ensuring that only children really requiring special schooling would be so placed.

Trends to inclusion

Some data are available which reveal trends over time. In general terms countries are increasingly moving to more inclusive provision. In Italy this has been an on-going process over the past 20 years. In Australia, as in most of the countries visited, studies by ACER (the Australian Council for Educational Research) across the whole country reveal a decline in the proportion of students in special schools. In New South Wales, a study by McRae (1996) showed a reduction from 32% in 1988 to

16% in 1997 in special schools. The proportion of those maintained in special classes also declined from 60% in 1988 to 49% in 1997. The proportion increased for those in regular classes from 8% in 1988 to 34% in 1997.

But there are also anomalies. In Denmark, one of the pioneers of the inclusive approach, it has already been noted that between 1981 and 1988 there was a statistically significant trend revealing an increase in the use of special classes in regular schools in preference to integration in regular classes from 24% to 32% with a decline in the use of regular classes over the same period from 26% to 22%. However, the proportion in special schools also declined from 50% to 46%.

In Australia, the need for some degree of special school provision is still accepted, especially for students with behaviour problems with histories of violence. In New South Wales, new special schools for this group of students are being opened with the intention of securing safe school environments for the other students.

Funding and resourcing

In most of the countries visited, funding arrangements for students with special needs were in a state of flux. This was partly because the form of educational provision was changing towards greater inclusion and partly because the locus of funding was changing under general policies of decentralisation which are impacting on the degree of control effected by central administrations. In addition, relevant data were not readily available. This may be, because up to now the provision of appropriate education for disabled students has been viewed as of greater significance than the costs.

However, the move to inclusion and the introduction of the special needs framework seem to be associated, in some countries, with increases in the numbers of children identified and hence the costs to education of supporting them. For example, in the United Kingdom the number of certificated students (with formal statements) and individual education programmes increased from 2.1% to 2.9% between 1992 and 1997 (Department for Education and Employment, 1998). In the United States between 1989-90 and 1993-94 the numbers receiving special education services increased from 9.8 to 10.3% (US Department of Education, 1991, 1995). Inclusive practices can have an impact since schools, in tightening financial circumstances, may see opportunities for increasing their income by pressing for more children to be assessed and certificated than before. Greater awareness of the budget has led to the costs of special education, and concerns about its effectiveness, being placed higher on the policy agenda. In federal countries, where there is provision from federal governments, the contribution is relatively small. In New South Wales in Australia for example this accounts for only 3% of the SEN budget. In Colorado in the United States it is 10.8%.

Staffing

Student/teacher ratios

All children with SEN are not estimated to require the same degree of additional support; "each according to his needs" seems to be the principle, through which it is important to match the nature and level of expertise to the nature and degree of special need and to aspects of learning demand *e.g.* whether the child is learning new material or practising already acquired information. Usually there is a distinction made between more severe and less severe needs with more severe needs being better resourced. For example in Denmark, on average, those with more severe disabilities are afforded a pupil/teacher ratio of 1.7: 1 while those with less severe needs the ratio is 4.3: 1. In New South Wales in Australia three categories – high, moderate and low support needs – are identified.

Apart from location of education, therefore, one of the major differences between regular and special education is the student/teacher and student/adult ratios, which account for a large proportion of the increased costs. Table 3 shows, in approximate terms, differences in these ratios in different forms of provision based on a sample of the schools visited and provides student/teacher and student/adult ratios.

In general terms, a comparison of the overall student/teacher ratios shows that the schools visited were similar to national averages (OECD, 1998), with the exception of the secondary school visited in Italy, which has been an experimental school for inclusion over a number of years.

The data show clearly that in all countries, more teachers and adults are provided for those with SEN in special schools where it can be assumed that students with the most severe difficulties are educated. For those in inclusive regular schools, the student/teacher ratio is usually more favourable (although not always so, *e.g.* Australia, Iceland and the United States) with much of the additional support being provided by other adults who are not teachers. These comprise a very variable range of individuals, such as speech therapists, psychologists and classroom assistants.

The student/adult ratios invariably provide substantial additional human assistance, being 4-5 times as favourable. Based on visits to a small number of upper secondary establishments, reported in the detailed country studies, it seems that this additional provision is continued in these settings.

Assistants/Aides

Economical provision for SEN students is also achieved through the use of classroom assistants who usually are not qualified teachers and receive lower

Table 3. **Student/teacher and student/adult ratios for students with special needs in primary, lower secondary and special schools based on schools visited**

Student/teacher ratio for schools visited for all students

	Primary	Lower secondary
Australia (New South Wales, Sydney)	16:1	14:1
Canada (New Brunswick, Woodstock)	19:1	19:1
Denmark[1]	11:1	11:1
Germany (Berlin)	17:1	m
Iceland[1] (Akranes)	11:1	11:1
Italy (Rome)	7.5:1	4.5:1
United Kingdom (Derbyshire)	m	16:1
United States (Colorado)	20.5:1*	18**

Student/teacher ratio for all schools for all students[2]

	Primary	Lower secondary
Australia (New South Wales, Sydney)	18:1	m
Canada (New Brunswick, Woodstock)	17:1	20:1
Denmark[1]	11.2:1	10.1:1
Germany (Berlin)	20.9:1	16:1
Iceland[1] (Akranes)	12:1	12:1
Italy (Rome)	11.2:1	10.8:1
United Kingdom (Derbyshire)	21.3:1	16:1
United States (Colorado)	16.9:1	17.5:1

Student/teacher and student/adult ratio for schools visited for SEN students

	Primary		Lower secondary		Special schools	
	Student/ teacher	Student/ adult	Student/ teacher	Student/ adult	Student/ teacher	Student/ adult
Australia (New South Wales, Sydney)	18:1	9:1	***	2.7:1	6.3:1	3.1:1
Canada (New Brunswick, Woodstock)	15:1	4:1	15:1	4:1	a	a
Denmark[1]	2.6:1	1.6:1	2.6:1	1.6:1	2:1	1:1
Germany (Berlin)	12:1	4:1	m	m	6:1	3:1
Iceland[1] (Akranes)	17:1	10:1	17:1	10:1	1.3:1	1:1
Italy (Rome)	2:1	m	1:1	m	a	a
United Kingdom (Derbyshire)	m	m	6.7:1	3.2:1	8.1:1	5.7:1
United States (Colorado)	18.1:1	7.4:1	21:1	10:1	7:1	2.7:1

a Not applicable
m Missing
1 Figures cover ages 5-16
2 Figures for student/teacher ratios for regular schools taken from OECD (1998)
* Middle schools
** High schools
*** No formally qualified teachers provided
Source: OECD

salaries. Salaries ranged between 0.33 and 0.67 of those of qualified teachers and varied considerably from place to place. While comparisons are approximate and are available in some instances only, Table 4 provides a broad indication.

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Table 4. **Salaries of classroom assistants, expressed as proportions of teachers' salaries**

District/region/country	Assistants' salaries, as proportions of teachers' salaries
New South Wales, Australia	0.50
Woodstock, New Brunswick, Canada	0.33
Iceland	0.67
Derbyshire, United Kingdom	0.50
Colorado, United States	0.30

Source: OECD.

Allocating resources

The means to distribute resources equitably is also a key issue and varies substantially from country to country. In some countries, such as New Brunswick, there is a block formula with an additional amount set aside for special cases. In Iceland, staffing allocations for ordinary schools assume that some 16% of students will have special needs, and because of this a notional allowance of a quarter of an hour of teacher time per student on roll per week is added. In others, the approach is based more on the number of cases identified. In Colorado, for instance, 10.5% are identified through detailed assessment procedures, and resources are allocated accordingly.

Where countries' education authorities do allow for differences from one school to another in prevalence of special needs, one proxy index used to indicate the extent of these variations is the percentage of children eligible for free or reduced cost school meals. Another is the percentage scoring below a certain level on a standardised test of reading ability.

While indices of this sort can only yield rough estimates of need, they appear to provide adequate bases for the allocation of resources across the group as a whole. Where there is no recognition of these differences in prevalence of special need, it would not be surprising if teachers were to try to make out cases for specific provision, not necessarily on an inclusive basis, for individual members of the group.

Attempts to allocate resources fairly in accordance with need were sometimes confounded by the fact that most of the money available for education was collected through local taxation. The result was that districts with high levels of unemployment had less to spend per head on ordinary children than did less disadvantaged districts. In some regions, these effects were mitigated to some extent through specific grants, sourced at regional or national level, some of which were concerned with special needs.

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From the point of view of encouraging inclusive practices it is important that funding arrangements help to create a level playing field so that special school provision is not given preferential treatment for resources. In New South Wales, for instance, special school teachers are paid an additional daily sum of AUD 6.14 which is not available to those working with equivalent children in regular schools. In Germany too, special school teachers are paid at the top end of the scale at an equivalent rate to grammar school teachers.

In some countries, funding models are being used as a policy instrument to influence inclusive practices. In Colorado for example a checklist has been identified with criteria that funding formulae should meet if they are to support inclusive education. Five are identified:

- Allocating a single amount for each child.
- Tying special education funds to a general school funding formula.
- Adding a flat percentage to allow for special needs generally.
- Considering an adjustment for poverty.
- Including arrangements to evaluate the formula's effectiveness across the state.

In addition, mainstream schools are given the choice to keep children with disabilities plus the extra resources or let the child go to a special school and lose the resources. This has led to many schools choosing to keep their disabled pupils. As a further incentive, transport budgets for regular and special schools have been merged into a single item thus discouraging expensive transport to special schools often outside of the community base.

In Australia, in New South Wales, individual schools may apply for state integration funding for students who they think can be educated in regular classrooms. Allocation of funds is not automatic and depends on five criteria:

- The student is enrolled in a regular class.
- Additional support is essential to the provision of an age appropriate programme.
- This support meets individual needs that cannot be met through in-school resources already available.
- The support includes an individual education plan.
- The support encourages the student's maximum independence.

In the Australian state of New South Wales, the procedures developed for determining the funds to be allocated for helping students with disabilities in ordinary classes were particularly detailed. Stringent criteria were set at state level, and bids were being made by the schools on an annual basis.

For each student for whom extra help was being sought the school principal had to complete a form. The completed form had to specify the number of hours of special help required over the coming year, present the results of tests administered, state the teaching methods to be used, set objectives for student outcomes, and list any extra special educational help already received, both with respect to this student and to any other students with disabilities in the school. The forms completed were monitored at district level and then submitted for consideration by staff in the state's education department.

A comparison of costs entailed in integrated and segregated provision

Calculating the costs of special educational provision is notoriously difficult although it is generally assumed that the per capita cost is higher (OECD, 1995*a*). This seems a fairly safe assumption since student/teacher ratios are more favourable for SEN students and teachers' salaries make up a large proportion of the costs. In New Brunswick in Canada, where there was functional inclusion, the cost of disabled students, estimated at 5% of the student population, was twice that of non-disabled students. In Italy's national system it was four times for 2.4%. In a specially resourced functionally inclusive school studied in Derbyshire in the United Kingdom the cost was 2.5 times higher, with some 3% of students on statements.

It is also generally agreed that inclusive settings are less expensive than segregated ones. The question of comparative costs was carefully followed during the course of the study with administrators and schools. Based on the funding allocated to schools, it emerges that for systems as a whole special school provision tends to be more costly than regular school provision. A common ratio is about 1.2: 1 although in Reykjavík in Iceland the ratio was nearer 5: 1 reflecting the severe nature of the disabilities contained in their special schools and where inclusion is strongly developed. By contrast, a close inspection comparing per capita costs between a special school and a regular school in the United Kingdom revealed the regular inclusive school to be more costly (Annex 3).

The most striking example of differences in costs was found in Reykjavík, Iceland, where the most expensively educated student with a disability in an ordinary school was said to be a 6 year old boy with autism, who was receiving highly specialised individual help. While the cost of providing this was high, local education authority staff calculated this to be no more than the average cost of educating the students attending Reykjavík's special schools.

These findings can only be treated tentatively and they need replication both within and among countries. What the data point to, is the importance of analysing costs in the context of different educational governance policies such as decentralisation. They also argue for giving greater consideration to the links between the costs and the effectiveness of different settings about which there is little if any available data.

Among the countries visited, there has been a trend in recent years towards the devolution of the management of funding, from central government to regions, from regions to districts, and in some instances to individual schools. Where the extent of devolution of funds for ordinary education differs from that for special education, this can influence the extent to which inclusive education occurs. If funds for ordinary schooling are borne from district budgets but those for special schooling are managed at regional level, as in parts of Denmark for example, districts may be tempted to press for special schooling for their more expensive students.

By contrast, the example from Colorado quoted above shows that the devolution of funding both for ordinary education and for special education right down to the level of the individual school can enhance inclusive education, if allocations fully reflect costs.

Accountability and evaluation

Accountability, a policy issue of increasing importance with an international dimension, has particular relevance to a rights based view of inclusion and therefore for those with special educational needs.

Accountability may be furthered by national systems of school inspection, designed to assess the extent to which the schools are providing value for money. Another powerful tool in implementing the accountability model is the publicising of schools' examination results and the results of nationally standardised tests of academic achievement. While both may help to improve school performance generally, they can also have the unfortunate side-effect of militating against inclusive education practices, particularly if the accountability procedures fail to take due account of children's abilities on entry to the school concerned. Doubts raised by central government on the value of mixed ability teaching and smaller class sizes can also be unhelpful in the context of inclusive policies. In Italy, for instance, successful inclusion is predicated on smaller class sizes.

Accountability procedures may have the incidental effects of discouraging schools from taking on children who are likely to perform poorly in examinations, of encouraging schools to expel children whom they find difficult to teach, or of tempting schools to omit children with learning difficulties from testing programmes. Thurlow (1997) refers to some two-thirds of students with disabilities in schools in the United States as having been excluded from the 1992 administration of the National Assessment of Educational Progress. Other countries point out that flexibility in the examination process is important for inclusion and schools should also be willing to keep disabled children in school beyond the normal school leaving age if this is requested.

The fact that accountability systems can encourage competition between schools can clearly act as a stimulus to their greater effectiveness. It can also, however, deter them from co-operating, and co-operation between schools is often a feature of special education in ordinary schools. For example, schools can help children by providing a free flow of information concerning children moving from one stage of education to the next. Some systems have the flexibility to allow teachers to cross the primary/secondary boundary and carry on giving support to disabled children in the new setting.

Evaluation and accountability are central concerns both for teaching practices and systems. Modified assessment systems for those with SEN are seen as especially necessary and also very helpful for developing new systems for all children. Individual education programmes need to be constantly reviewed.

At the system level, evaluation of the SEN provision was made, and a constant monitoring of the accountability of professional staff involved was a common feature. In one country, indicators had been developed based on the provision of equal academic opportunities, performance quality and accountability to the community which were used to evaluate schools and districts.

In evaluating the effectiveness of the inclusive education they were providing, the education authorities concerned tended to rely on the informed opinion of their own educational advisers and on the views of bodies representing parents of children with disabilities. There were instances, however, in which investigations had been conducted on a more systematic quantitative basis.

In the Woodstock district of New Brunswick, Canada, where the educational strategies used were seen to be particularly effective, the measured educational achievements of students in a pan-Canadian comparison generally were above what might have been expected on the basis of socio-economic factors, and the Director of Education concerned publicly attributed these results to inclusive education.

In Colorado, rigorous quinquennial reviews of provision were undertaken, and outcomes in the Commerce City district visited were reassuringly positive.

In New South Wales, Australia, the government had commissioned a particularly extensive independent feasibility study of inclusion. While the ensuing report identified weaknesses still to be addressed, it also recognised substantial and beneficial growth over recent years in the education of students with disabilities in ordinary classes.

Finally, and not amenable to identification through the measurement of conventional academic achievement, across the countries visited there was the evident effectiveness of inclusion, not only in educating children with disabilities, but also in helping children and adults without disabilities to empathise with these children and to increase their own understanding of the nature of disability. The Danish girl who unobtrusively took the blind child by the hand when the class moved on to the school library provided just one among numerous such examples.

Training

In most of the countries visited, the training of teachers to work with students with SEN was accorded a high priority. In some, it was a requirement for all teachers, in others, specialist courses were a requirement for teaching those with SEN. Courses are offered at different levels, thus recognising the need for a variety of skills for severe and specific needs and also to develop leadership. Interestingly, a recent US study has shown that teachers working in special education are better qualified than the rest of the teaching staff (Hocutt, 1996). In-service education of teachers (INSET) was also offered in many countries. In Colorado, training particularly emphasised working in included settings and in Italy, too, the on-the-job method of training *per se* encouraged inclusive approaches. Many local authorities produce training and information packs for those working in the schools or for new employees. Germany was perhaps the big exception with SEN training being heavily oriented to the special school. In Denmark, despite inclusionary practices, SEN training did not appear to be emphasised at initial teacher training and INSET courses were not always easy to get or very extensive even for those working with students with sensory impairments where very specific knowledge is required.

If Denmark is considered to be a special case, perhaps because of its long history of inclusion, countries operating inclusive systems or moving in that direction clearly give training for work with disabilities high priority, and training is almost certainly one of the key elements for success. A high practical content seems to be a feature of many of these offerings and one of the goals should be to change teachers perceptions of their roles since an inclusive approach emphasises management and collaboration. Skills that training should provide include:

- Working as the special education co-ordinator.
- Team-teaching.
- Developing mutual support between teachers and learning to develop effective collaboration through meetings and a problem-solving approach.
- The pedagogics of curriculum differentiation.
- The development of individual education programmes.
- The monitoring of progress.

These were certainly features of training for example in Canada (New Brunswick), and Italy. In Iceland, interaction between special schools and regular schools was part of the process of training.

Opportunities for sound in-service training on a continuing basis, for class teachers, classroom assistants and special education specialists, are characteristic of countries and regions in which good practice in inclusive education has been sustained over the long term.

In Italy, where virtually all school-age children with disabilities were being educated within the ordinary school system, special education support teachers were assigned specifically to work with the 2% of children officially certificated as requiring individual education programmes. These teachers were obliged to follow a course of 1 150 hours, taken over a two year period, which included both theoretical aspects and 300 hours of on-the-job training. They were trained to use systematic evaluation methods in planning ways to help students overcome their learning problems.

These special education support teachers were seen to be well respected in the schools visited and it was evident that, while class teachers had little access to formal in-service training in special education, co-operation between support teachers and class teachers was extensive, and that this co-operation served as a continuing source of the development, among the class teachers, of knowledge and skills in special education work.

This informal in-service training of classroom teachers was helped considerably by the ready availability of the support teachers, who had exceptionally generous allocations of time per child with moderate or severe difficulties, and who devoted their time specifically to these children, rather than to children with special needs more generally.

A more extensive network of in-service training was seen in New Brunswick. All New Brunswick's initial teacher training courses for class teachers included assignments designed to introduce them to work with children with disabilities. Once in post, the class teachers had access to further in-service training and one district, Woodstock, was seen to be particularly active in providing this.

As well as being able to take advantage of the day-to-day support provided by the special education specialists in their own schools, the class teachers could attend courses run by the district's student support services team in topics such as multi-level instruction and effective crisis intervention. As part of their programme, the district team had produced a guidance manual and an associated video designed to help teachers make use of collective approaches to problem-solving. Most courses were run outside timetabled school time. Sometimes, though, supply teaching arrangements were made, for example to release class teachers to visit other schools and see good practice there.

The schools' special education specialists also had access to continuing in-service training run by the district's student support services team. This included monthly one-day sessions designed to help them act as agents of change within their own schools and to train them to undertake activities such as assessment, mediation and problem-solving. In this way, training integrated with school development provide a means to increase skills to meet special needs in a way relevant to inclusive education. There were also opportunities for teachers in the region to study for higher degrees in special education.

Similar arrangements existed in Iceland, where in one of the municipalities visited the special education support services within its six schools had been strengthened by the fact that the community had decided to top up the general allowance applying nationally with respect to special education in ordinary schools by a further 30%. This enabled special education within each school to be co-ordinated by one of the teaching staff, who had five or six hours per week allocated for this purpose. The six co-ordinators met as a group with staff of the municipality's special education service once every three weeks to discuss special education issues existing in their schools.

In other countries too, there were examples of considerable effort being made to meet the formidable requirements of ensuring that teachers in ordinary schools could meet their responsibilities for helping students with disabilities in their classes. In New South Wales, a major initiative in literacy teaching had involved specialists at state level in preparing training packages and using them in running training courses for the special needs and literacy co-ordinators of the state's forty districts. The co-ordinators then ran the courses in their own districts, with a total of over 2 000 support teachers from ordinary schools attending.

A special study on the training of teachers to work in inclusive settings was carried out as part of this work and is reported in Annex 1.

Out-of-school support services

In all countries visited, schools received substantial additional support for their work with students with SEN and this is plainly a key area for successful inclusion and education of these students. There are a large number of professionals identified by the countries that serve in these roles comprising in general terms: peripatetic teachers with various forms of specialism, SEN co-ordinators, teacher assistants/aides, school counsellors, educational psychologists, clinical psychologists, youth service psychologists, psycho-therapists, social workers, physiotherapists, speech therapists, occupational therapists, doctors and nurses. In addition, it must not be forgotten that parents and communities and voluntary bodies also provide extra support which can also include "civic servants", for instance those working in communities in place of national service in the armed forces.

Finally there are local education authority advisers and officers who also work with schools specifically in the special needs field. These services provide front line support for students and teachers and are also closely involved in the formal assessment arrangements that all countries undertake in order to allot additional resources to, and make special arrangements for, students with SEN. Transportation is often also provided.

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The organisation of these services varies substantially between and within countries especially with the growing decentralisation of provision. What is important is getting the skills and support to the schools according to need. Thus, an appropriate balance has to be struck between the skills available within the school staff, the degree of disabilities in the children in the schools and availability of the support service personnel, who often find themselves in high demand. In this vein, it is worth noting that there were frequently not enough speech therapists. They were thus highly sought after, with those who were available often unable to meet the demand.

In using these services to develop effective inclusive provision it is important to consider how they work with the school. One possibility is that they work with the students themselves in essentially a clinical *model, i.e.* on a one to one basis isolated from the school as a whole. Another is that they support schools and staff efforts to developing effective approaches to teaching the disabled students in the school, as in New Brunswick. This latter approach is clearly preferred and the schools visited were working in this way usually having identified a teacher or teachers to take responsibility for co-ordinating special needs support in the school. Nevertheless there were still big differences between the schools visited in the approach taken by support services particularly in the degree to which the support services explicitly saw themselves as encouraging and supporting schools to solve their own problems. This can be dramatically illustrated by referring to the three districts visited in Iceland. In the first district the ratio of SEN students to support staff was 47: 1; in the second 520: 1 and in the third 1 320: 1. In the last two districts there had been substantial investment in within school support thus changing the form of the external support. In Germany and Canada (New Brunswick), we were told that relying on external professionals to sort out problems can often involve inordinate delays and inconsequential advice. If a school can handle the sparks the fire brigade is not required!

The role and function of support services has to be a key feature of successful inclusive practice. Certainly, the model developed in New Brunswick especially in Woodstock which stresses support and training of all staff is well regarded by them and by parents and students. Furthermore they also support *all* students, throughout their whole school lives, however severely disabled they may be. A similar model was also a feature of the successful integration practices in Berlin. Approaches that strengthened the ability of the staff to accept and work constructively with SEN pupils were a feature of all of the countries visited and the role that teachers can play is discussed more fully in the later section on curriculum development.

The training of non-teaching professionals to work with teachers and disabled students in the school setting is another central issue to successful inclusion, particularly as their role in enskilling teachers is imperative. A special study was carried out in seven Member countries to look at approaches being developed in this area. In brief, it revealed outside of a small number of innovatory programmes, a severe lack of opportunity both at pre-service and INSET level for these professionals to develop relevant skills. A full report on this work is provided in Annex 2.

Within-school support services

The extent to which class teachers were themselves able to provide support for children with special needs depended not only on their own expertise but also on factors such as the extent to which the organisation of the school helped the teachers become familiar with the children's needs.

In Germany and in Italy, for example, teachers with children designated as having disabilities within their classes had smaller classes than did those without. In Denmark and in Iceland, it was customary for class teachers to remain with the same children during the children's year by year moves up through the school. In the Danish system, for example, it was seen that a teacher given special training to help her teach a child with visual impairment was likely to be able to use the expertise gained to continue to help that child throughout the child's period in that school.

This kind of continuity can also be enhanced if the chronological ages of the children within a class span two years or more, but such arrangements were not features of the schools visited and in most instances a primary school class teacher would take a child for one year only. Classroom assistants and schools' special education specialists, on the other hand, did get to know children with disabilities over a longer period of time, often over the whole period of a child's stay in the school, and this experience was of considerable advantage to them in carrying out their duties.

In the most effective examples of inclusive education seen, class teachers and their classroom assistants had access to a network of support provided within the school by teachers with advanced qualifications and associated expertise in special education. In the United Kingdom, a cadre of teachers called special education co-ordinators, have, as their name implies, the task of co-ordinating the schools work in supporting students with SEN. When called upon by the class teacher, these specialist teachers might help with the setting of individual targets, with the planning of lessons and their adaptation to meet special needs, with classroom teaching, and with the assessment of children's progress.

If necessary, and by agreement with the class teacher, they might withdraw children for a time, individually or in groups, either to carry out a particular intensive programme or to help cope with a crisis.

The longer term strategies of these specialist teachers could include preparing adapted curriculum materials designed to help successive cohorts of children with learning difficulties at particular stages of the syllabus in particular subjects. In order to facilitate this kind of curriculum development, where several specialist teachers were employed in one school, as was seen in a secondary school in the United Kingdom, for example, it was possible for their subject strengths to complement one another. Thus, one of the specialists might have expertise in language development, another in mathematics and another in science.

In these circumstances special education specialists might maintain their own subject expertise, and their credibility within the school, by spending part of their time relieving class teachers to take their classes for lessons in these subjects.

At their best, these special education specialists were fully integrated within the school as a whole, both sharing in the teaching and being members of the school's management team. Their contributions to school management could be as problem-solvers, not just with respect to special education, but with respect to problems experienced generally. They might also have some expertise in aspects of school life affecting all students, for example in assessment of students' progress or in staff appraisal.

Where these roles were developed fully, the posts of specialist in special education were highly regarded, much sought after, and recognised as stepping stones to school headship.

While examples of fully developed within-school support systems were seen, they were no means pervasive, even where all or virtually all children with special needs were being educated in ordinary schools. In New Brunswick, for example, where the same inclusion policy and legislation applied across all districts, and where fully developed support systems were seen to operate in the schools of one district, this was not the case in another district visited. In the latter, people designated as special education specialists often lacked special training and spent most of their time, helped sometimes by classroom assistants, teaching groups withdrawn from ordinary classes for extra help in basic subjects.

Between-school support

In developing inclusive practices, the skills of special school teachers are frequently used to support and train teachers in regular schools through outreach practices. Movement may be in both directions with special teachers spending periods of time in regular schools and for teachers in regular schools spending time in special schools. The smooth transition of students between the various phases of schooling is also viewed as important and some countries make special arrangements. For example, in Berlin, primary teachers follow their students for short periods into the comprehensive secondary school in order to help them settle into their new environment.

Parental and community involvement

Parents can be involved in schooling at several levels. In some of the countries visited *e.g.* Canada (New Brunswick), they are strongly represented in the school governance process where they can even be in the majority on committees and directiy influence school policy-making. In others there is relatively little involvement at this level.

In terms of more direct involvement with their children vis-à-vis schooling, in all of the countries visited, it is clear that parents are able to be very strongly part of the education of children with special needs *e.g.* by listening to them read. In fact, in many they have spearheaded the inclusion movement and have lobbied for reform. In all of the countries visited, parents are closely involved in the decision-making concerned with assessment arrangements. In Denmark, for instance, except in very exceptional circumstances, they can virtually prevent certification.

There is more variation in the degree to which parents seem to be welcomed as part of the education process. In some countries there appears to be very full involvement. For instance, in Canada (New Brunswick) they can take part in training sessions with teachers in problem-solving approaches and can be involved in schools. It is essential to make specific arrangements to liaise between schools and parents and the discussions that take place should be problem-centred and should emphasise practical solutions.

Community involvement seems likewise very variable. In Colorado, accountability committees ensure community involvement in the development and evaluation of school improvement with the results being fed back directly to the community. An on-line database forms part of the work of PEAK (Parent Education and Assistance for Kids) the local branch of which also publishes Colorado-based resources for parents and educators wanting to promote inclusion.

Other members of the community can also become involved in schools. In Colorado again, Americorps volunteers work in the classroom with children at risk and co-ordinators also ensure that students with disabilities get the services to which they are entitled, by working via community awareness approaches and training sessions. In Italy, in Rome, it was reported that both professionals and parents and other members of the community work with churches and other voluntary agencies in local provision.

In Colorado, education department, university and parent body representatives had collaborated to implement a project providing in-service training for school leadership teams in developing strategies for inclusive education. Their stated emphasis, similarly broad in its scope, was on catering for ethnic, cultural and intellectual diversity.

School organisation and management – opportunities for whole school development

Educating students with special needs is an issue for the whole school, not just for individual teachers. Furthermore, planning successful inclusion has to go beyond the teaching of traditional subjects and give equal close attention to the social and affective side of development. The work described in the reports on the United Kingdom and the United States provide useful examples.

In the whole school approach, head teachers and the school management clearly need to be closely involved in innovations especially since they are accountable for how the school works, its ethos and motivating teachers to work for all the children on the roll. In all of the schools visited, head teachers and the management team were committed to inclusive education. In the secondary school in Derbyshire (United Kingdom) for example, the head of the upper secondary school had had an earlier career in special education and the chairman of the Board of Governors had previously been appointed to the Board to represent the interests of children with special needs.

There was particular interest in this school in coherence of practices, not only in curriculum but also in the pastoral work. For instance they had implemented an "assertive discipline" programme across the school, adhered to by all teachers, which specified classroom rules about acceptable behaviour. When students transgressed there were scaled constructive punishments which often incorporated parents. This programme was also associated with rewards for good behaviour on both an individual and group basis. If students felt that they had been unfairly treated there were "appeal" procedures. The school claimed that this approach was very useful in preventing "exclusions" from school, a particular problem in the United Kingdom, because it provided a means of dealing with poor behaviour before it crossed the threshold of unacceptability. For some countries this is an area of great concern, and many headteachers raised the question of coping with violence which is occurring at younger and younger ages. In Australia, for instance special schools were being opened to deal with violent children.

In the United Kingdom school, careful attention was also given to allocating students to tutor groups so that they would be with other tolerant students and also more accepting teachers. In addition, when there are problems relating to the management of individuals, they are dealt with constructively with an individual focus. The learning support team also provided a "safe haven" for students with special needs which was extensively used by them and other students at break times.

In one of the schools visited in Colorado, the school ran a school within a school called "Choice". This gave students more control over their curriculum and teachers reported that it had proved very effective for students, including those with special needs, who struggled with the structure of the regular school.

Curriculum development

Curriculum development is another key area in sustaining functional inclusion and all countries visited had addressed this issue to a greater or lesser extent. In Australia for example, the National Strategy for Equity in Schooling (1994) identified curriculum and assessment as a key area for development for students with SEN. In New South Wales, outcomes based education (a structured approach to education stressing the outcomes students should achieve in making progress through the curriculum) has been emphasised and the state's board of studies has developed generic lifeskills courses to complement the key learning areas of the regular curriculum and to help in the development of individual education programmes. The reading recovery programme (Clay, 1994) has also been adopted and is implemented in schools. In the United Kingdom and Canadian examples, students with SEN follow the standard curriculum and teachers make the necessary adaptations for them. In Colorado, a federally funded curriculum development systems change project [Supporting Inclusive Learning Communities (SILC)] is being used to stimulate school improvement via action research methods. Progress towards agreed goals is reviewed monthly.

In one of the high schools visited there, affective education was part of the curriculum for those with special needs and covered such areas as socio-emotional development and conflict management. Life-skills and functional independence were also stressed for those with severe leaning difficulties.

In other countries curriculum modification for students with SEN may also include dropping certain subjects *e.g.* a foreign language, and providing more practical subjects instead. It might well include adjustments to assessment arrangements.

The use of teachers time has also been subject to change perhaps influenced by the Danish example where teachers tend to stay with the same students for several years. In Italy, primary teachers work on modules comprising two teachers per three classes or three teachers per four classes with each teacher taking responsibility for a cluster of subjects for two to three years. This approach in collaboration with support teachers has the potential of providing a coherent approach to curriculum planning for students with disabilities. In addition, in lower secondary education teachers stay with pupils for three years, and to help students with disabilities, teachers may stay with students across the primary/lower secondary boundary. In many countries progress is planned and monitored via individual education programmes, the development of which is often collaborative. It may involve school inspectors, as in Italy, or other officers from the local education authority or support services.

A central feature of curriculum development for students with SEN is the provision of teaching materials. In no country was this carried out comprehensively through central services or via private sector publishers, and teachers were left to develop their own supplementary materials sometimes in isolation and sometimes in collaboration with others in the school. In the school in Derbyshire in the United Kingdom, this was a main pivot of the successful inclusion programme. There, teachers supplemented the regular curriculum with additional resource material, especially prepared for each curriculum subject, which allowed for real classroom based differentiated teaching. These materials were stocked in the special education resource room and could be used by any staff member. The ready availability of teaching resources is obviously essential for teaching and becomes ever more important during the secondary years where the curriculum becomes more varied and the pressure more intense. There is clearly a role here for information technology which is used extensively in some schools. Whether the currently available software really meets all of the needs is unknown but seems unlikely.

Curriculum differentiation is a key part of successful inclusion, but in Italy, where compulsory schooling ends at age 14, it was pointed out that this onerous process is less extensive in upper secondary school where students have more choice and transition to work programmes also are evident and where there are counsellors to provide additional support.

Classroom organisation

Classroom teachers undertaking inclusive education usually had the assistance of at least one other adult. Classroom assistants were assigned specifically in relation to individual children with moderate or severe disabilities, not in relation to children with special needs more generally, although they would often help the latter as well as the former. They were not necessarily assigned on a full-time basis, and the work often proved attractive to certain people, mothers with children of primary school age for example, whose other activities make it difficult or undesirable for them to take on full-time paid employment.

The assistants worked under the direction of the classroom teachers, whose lesson planning with respect to children with special needs was helped if necessary by the school's special education support staff. For the lessons to be effective, class teachers generally had to spend a significant amount of time planning them, in addition to time spent planning the lesson for the rest of the class. For a child with a severe learning difficulty, for example, this could take as much as a quarter of the time needed to plan for the rest of the class. In addition, time was needed to discuss the lesson with the classroom assistant.

Instances were seen in which the thoroughness of planning was such that the children had all the information and instructions they needed presented to them in written form at the start of the lesson, with adapted materials, perhaps in the form of simplified instructions with supporting illustrations, prepared for those with learning difficulties. This enabled most of the children to carry out their tasks unaided, thus freeing teacher and assistant to circulate round the class from the beginning, helping individuals as necessary.

The pattern most prevalent in the countries visited, was one where the assistant would work in the classroom with a child with a disability on the same topic as that set for the class as a whole. Effective work was seen, for example, in which the assistant took a child or a small group out for a particular purpose, went round helping various children including some without special needs, or looked after the class as a whole while the class teacher helped children with special needs.

In-class help for children with disabilities was at its most effective when planned within the framework of the general school curriculum, when it was targeted precisely to meet their identified special needs, when their progress towards these targets was systematically assessed, and where the results of assessment guided further planning.

Targeting was usually a statutory requirement for some of a country's children with special needs, with learning targets being referred to in formal documentation, for example, through individual education programmes. The targeting of education programmes varied appreciably in its specificity, as did assessment of progress.

Conclusions and policy implications

What is involved in including disabled students in mainstream schools and classes?

The following conclusions are based mainly on the case studies carried out in eight countries in three regions (North America, Europe and the Pacific Area) of the world where inclusive education is being implemented. In some of these countries, all students, whatever their degree of disability, are being included in mainstream schools. It has to be said, that examples of full inclusion are not easy to find, despite many years of positive policies and changing practices. Nevertheless, they do exist, and based on these examples, this book has attempted to identify the key issues in creating and sustaining full inclusion and stimulating the process of change.

Although there is still substantial debate over the desirability and feasibility of inclusion, including students with special needs in regular schools is an internationally supported policy initiative that operates alongside others, such as concerns for equity, human rights and the development of strategies for lifelong learning and decentralisation and should be given equal consideration during reviews of education policy and planning. The substantial sums of money devoted to the education of those with SEN can be seen as a positive discrimination in favour of the most disadvantaged in our societies with the goal of equalising opportunities. But full inclusion remains only a dim reality in many countries despite its demonstrated potential for assisting *all* students and growing evidence of its economic benefits (see McGregor and Vogelsberg, 1998).

For a variety of reasons, the education systems of OECD countries have grown up during a period in which segregating some students with special educational needs has been seen to be necessary for the efficient functioning of the service for the majority of students. This has led to the development of two systems, operating in parallel, with students with special needs being given additional support to assist in their education.

This has had the effect of creating, first, a regular system which does not feel it has to adapt to the needs of *all* children, and second, a special system which collects the rejects and with considerable additional resources, often in segregated settings, attempts to remedy the failings of the first. Neither of these outcomes is desirable and neither is commensurate with current views on equity and students' rights.

Inclusion is a process which aims to correct these developments through changes to the structure and functioning of educational systems and school practices to the benefit of all students. Bringing together the legal and financial frameworks covering regular and special education and making the unified system responsible for the education of *all* students are fundamental goals.

Inclusive schools are learning organisations in which teachers are adapting their pedagogies to the diversity of learning demands presented by individual children. They are doing this in the context of the development of the whole school which is also responding flexibly to individual learning needs through modifications to its structure and function. In this way, the school accepts its responsibility to educate *all* children, thus challenging the education/special education dualism. Schools do not, of course, operate in a vacuum, and inclusion also implies changes in the way they are controlled by central and local authorities and in the way teachers and other professionals are prepared through pre-service and in-service training.

This does not mean that these reforms can be achieved with none of the usual special education resources, quite the contrary. But it does mean that the locus of control and the organisation of these resources must change and become a whole school issue. This outcome has implications especially for funding and training.

The development of a within-school support approach

A feature of inclusive systems is that schools are more self-contained in the way in which they provide additional support for students with special needs. This can take the form of:

- Additional flexibility in the establishment of class sizes and in their composition.
- Immediate support for regular class teachers from specialist teachers within the school and from assistants.
- The reduction of teacher/student and adult/student ratios.
- Increased skills in curriculum differentiation and the development of more flexible pedagogies through the shared preparation of assessments and the writing of individual education programmes.

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- Corporate curriculum development, including the making of curriculum materials to meet educational special needs.

These strategies are preventative by nature, that is they help to stop failure and create an environment which avoids the need to teach to the mean. The process provides increased flexibility for all staff, and within it special needs teachers can play a more general role throughout the working of the whole school. A method of working such as this is also of great value in improving the use made of teaching assistants who are often provided for students with more severe difficulties.

External services

Inclusive schools are nevertheless still supported by external services, but close attention needs to be given to how these services operate. For schools to be able to respond quickly and effectively to learning needs then, as noted above, they must have the skills in-house. In the most effective inclusive models, this means that a crucial feature of the way support services work is to empower the school based personnel to solve their own problems through enskillment and on-going in-service training. In many effective systems parents and other community members are also closely involved and can benefit from the in-service training offered to regular teachers and other professionals. One system, Woodstock in New Brunswick, Canada, which operated explicitly in this way, had particularly good overall student results. While it is not possible to generalise from a sample of one, this outcome is consistent with other research which suggests that the additional skills gained by teachers from the collaboration that this enskilling model incorporates can benefit all the school's students not just those with special needs (Manset and Semmel, 1997).

Training

In these schools, the training of all those involved was a key to success. The training of teachers and other professionals was followed up in some detail, and a particular approach has been referred to in the previous paragraph. However, based on the work reported in Part 3 in this volume on the training of teachers and other related professionals, it can be concluded that, in general, personnel appear to receive inadequate preparation for the different education context presented by inclusive education. This is an area for substantial development.

Costs

Special education systems have grown up under different funding regimes from regular systems. They are always more generous, often giving bigger salaries for teachers and providing many other additional resources such as assistants, extra equipment and modification to buildings. There is some recognition that teachers with special education qualifications can be a very useful resource for the whole school and all its students. If they are all located in special schools this resource is certainly reduced and can be lost!

In the cases considered in this report, disabled students generally cost approximately two to four times as much as non-disabled students when educated in mainstream schools and rather more if educated in special schools. The figures here vary very widely and are very influenced by particular circumstances. Preliminary work, carried out in the United Kingdom, and reported in Annex 3, had the goal of linking costs to outcomes to compare inclusive and segregated provision. It did not prove possible to carry out a formal cost-effectiveness analysis, because of lack of data, but the pilot information gathered is suggestive that since reading outcomes were superior in the regular school for equivalent students the inclusive setting would prove to be more cost-effective, at least with respect to development of reading skills.

Funding arrangements can lead to uneven playing fields as far as inclusion is concerned, for instance with included special needs children attracting lower rates of support than equivalent segregated students. Funding arrangements and formulae have come under close scrutiny in many countries in order to avoid such bias and new arrangements may even tilt the field in favour of inclusion.

Accountability

Accountability is an important, necessary and growing element of education systems. However, if special education systems are not factored in, for example, this can create further obstacles to inclusion. Regular schools may be discouraged from taking on special needs students who are likely to perform poorly in examinations. While this may be true for some special needs students, as noted above, the evidence which exists suggests, perhaps counter-intuitively, that inclusive practices in fact improve the performance of non-special needs students. In part, this may be because of the increased attention given to pedagogy and curriculum differentiation which generalises teaching skills to all pupils. This is an important issue and needs further work. The OECD education indicators certainly provide a potential window to investigate this outcome more fully and even to link costs with outcomes.

Is full inclusion possible?

Based on the examples of inclusion described in this book it would be fair to conclude that from an educational point of view there is no limit to the degree of inclusion possible. Examples are given [*e.g.* Canada (New Brunswick), Italy, Germany], which show that all children however heavily disabled, can be included in regular schools with no detriment to themselves or other pupils providing the conditions are right.

There are three caveats related to full inclusion. The first is essentially political. It would seem that at present, many parents would prefer their disabled children to attend segregated schools. In governance models, where choice is emphasised, in the present circumstances there would seem to be no option but to maintain some segregated provision. The cost appears not to be prohibitive. However, this decision has to be set against the inhibitive effect such an option would have on reform processes and the practicalities of maintaining a dual system.

The second caveat relates to students with severe emotional problems who present a danger to other pupils. The ever increasing number of violent students appearing at younger and younger ages seems to be a widespread international phenomenon. If such problems cannot be prevented by or contained in the school through the development of the skills and methods identified above then other forms of provision will be needed. In addition, the study completed in the United Kingdom, suggests that with well structured, consistent and fair disciplinary procedures rates of exclusion for poor behaviour can be reduced. Furthermore, in Canada (New Brunswick), the schools and support services work together to keep students with emotional and behavioural disabilities in mainstream schools.

The third caveat comes from disabled students themselves, who pointed out that from time to time they like to be able to mix with other students with similar disabilities. It would be desirable if provision to meet this human need for solidarity were made available.

Final concluding comments

Central governments have a key leadership role to play in developing inclusive policies not only from the point of view of implementing international agreements but also in co-ordinating policies across the education/special education divide. This means giving consideration to the legal frameworks in operation, to coherence in education reform policies, to the development of training for the professionals involved, the involvement of other statutory services and the community at large. Monitoring the course of these reforms is also an essential component not least because the additional resources (often emanating from central ministry funds) made available for students with disabilities often involve substantial sums of money.

The importance of leadership at national, regional and local levels in developing and sustaining inclusive education cannot be underestimated. Many of the individuals currently involved have substantial international reputations in the rapidly growing international inclusion movement.

Including disabled students does not end with schooling and there is a growing demand for access to post-compulsory educational provision, including universities, to strengthen disabled people's chances on the labour market and their inclusion into society. A review of post-compulsory education for disabled students was carried out as a part of this study and has already been published (OECD, 1997*b*). Further work is being undertaken in this area.

From all that has been said, developing inclusive education must be seen as a reform process. For it to work, many new attitudes need to be formed and practices developed, not only among education professionals but across communities and societies as a whole. While these changes are taking place, many countries maintain a range of provision to offer choice to parents and to give flexibility to local circumstances.

Some comments on disadvantages of inclusive education and limitations of the study

Because of the nature of the work undertaken, which is presented in this book, and which was concerned with identifying good inclusive practice, little attention has been given to potential disadvantages of inclusion, although some issues can be identified. Given that so few systems have been able to develop full inclusion it is important to give further consideration to this issue.

As has been indicated, an inclusive education system which works is dependent on many factors at many levels in the system. *Inter alia*, there has to be political will, there have to be accessible buildings and teaching resources, there have to be skilled teachers, and community and parental support by parents of both disabled and non-disabled students alike. This is an important element, since parents of non-disabled students are often concerned that including those with disabilities will lead to teachers spending disproportionate amounts of time with them to the detriment of their work with non-disabled students.

An inclusive education system must, then, be able to continue to provide a high quality service in a safe environment for all of its students. A breakdown in any of the factors needed for effective inclusion may threaten the efficient working of the system for disabled and non-disabled students alike. For instance, violent students whose behaviour may be uncontainable, can threaten the safety of the school for other users.

Within the world of education for students with hearing impairments, there are also strong proponents for segregated education which are based on the argument that hearing impaired citizens have their own language culture which should be respected. This argument carries much weight in many countries, even those with strong inclusive policies such as in Sweden, where separate provision is made available for students with hearing impairments.

Earlier work by OECD (1995*a*), given some support by student voices reported in the current work, points to the possibility of social isolation in inclusive schools. If this problem is to be overcome, it must be addressed directly. However, it should also be borne in mind that social isolation may also take place in segregated schools not only in the functioning of the schools themselves but also because they are frequently located many miles from the students' and families' own homes and communities.

Many of the arguments presented in the literature which caution against inclusion are frequently based on the assumption that regular teachers will simply have to cope with little or no extra assistance, with students who present difficulties for whom the system has been unable to provide for effectively before (*e.g.* Merrow, 1996; Fuchs and Fuchs, 1994). But this is not an argument against inclusion when understood in the systemic way described in this book but against an argument for integration without the reforms implied by the term "inclusion".

Ultimately developing inclusion is a political decision which must take into account a large number of realities and perspectives. Even though evidence is presented in this book that full inclusion into schools is possible, a wider review would be needed to put this into a broader perspective by taking account of after-school experiences both in work and in society more generally. Such a review would also need to consider the post-school experiences of those disabled students educated in segregated settings.

Part 3

Country Case Studies

1. Australia

Introduction

This part of the publication arises from the focused visits undertaken in New South Wales, Australia, during December 1997. In the context of OECD countries generally, judging from information gathered in the previous project (OECD, 1995*a*, p. 39), in simple statistical terms, Australia was at that time fairly typical among the then Member countries of the OECD in the extent to which it provided mainstream education for children with special educational needs.

Survey findings indicated that the prevalence of children being educated outside mainstream ranged from virtually none in Italy and in the Canadian province of New Brunswick to 4.9% in Switzerland, with Australia occupying a median position at 1.55%. Within this range the Australian figure was higher than Iceland and the United Kingdom but lower than Germany and the United States.

In fact, practice across Australia varies appreciably, with its six states and two major territories administering and largely funding their own schooling, and determining policies and practices on matters such as curriculum, assessment, teacher employment and professional development (Ministerial Council on Education, Employment, Training and Youth Affairs, 1996*a*, p. 1).

For present purposes, therefore, New South Wales, which in 1994 provided for 34% of Australian students (Ministerial Council on Education, Employment, Training and Youth Affairs, 1996*a*, p. 13) is the unit of study rather than the country as a whole. However, where appropriate, some reference is also made to the all-Australia context. Prior to the visits, senior staff concerned with the state's special education policies and practice received a framework document (see Annex 4) which identified issues to be explored at the different levels and presented key questions to be asked.

The visits were undertaken over a five day period by the study's director and the study's senior consultant. Time constraints precluded exploration of all the issues identified. Information concerning relevant policies and practice was compiled partly from official documentation, partly through meetings with senior staff of the New South Wales Department of Education and Training and of the districts visited, and partly through visits to schools. Work with students was seen and discussed in three primary schools, one secondary school and one special school.

OECD 1999

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

A. Country, state and district arrangements

Prevalence

In 1990 a committee set up by the Australian National Health and Medical Research Council concluded that 10-16% of children and adolescents experienced learning difficulties, which might result from intellectual disability, physical impairment, sensory defect, emotional difficulty, inadequate environmental experience and/or lack of appropriate educational opportunity. A further 2-4% were thought to experience learning disabilities, resulting from other factors, and to function academically at a level significantly below that which might be expected on the basis of age and general ability (McRae, 1996, p. 84).

When perceived in an educational rather than in a health context, students with learning disabilities are usually considered to constitute a sub-group of those with learning difficulties rather than a separate entity.

Among the school age population of 3.1 million in Australia in 1994, with compulsory schooling mostly running from age 6 to 15, 71.5% attended government schools, 19.4% attended Catholic schools and 9.1% attended independent schools (Ministerial Council on Education, Employment, Training and Youth Affairs, 1996*b*, p. 10).

Within the government school system in 1992, 2.3% were recognised as having disabilities, the figure ranging from 1.8% in Victoria and Western Australia to 5.6% in Northern Territory, with New South Wales being close to the national average at 2.4%. In non-government schools nationally, the percentage recognised as having disabilities was only about half that in government schools. In government and non-government schools combined, therefore, some 2% of students were recognised as having disabilities (de Lemos, 1994, p. 54).

Whereas the prevalence of students with disabilities in New South Wales in 1992 was fairly typical of those in government schools across Australia as a whole, the distribution of placements of these students was not, as can be seen from Table 1.1, drawn from figures presented by de Lemos (*op. cit.*, p. 58).

With the total number of students in New South Wales government schools having been 757 921 in 1988, 755 906 in 1995 and 764 173 in 1997, the proportion of those recognised as having disabilities increased from 1.9% in 1988 to 2.7% in 1995 and stood at 2.6% in 1997 (McRae, 1996, p. 23; New South Wales Department of School Education, 1997*b*). This apparent increase in the prevalence of disabilities over the decade was probably at least in part a function of changes in criteria for identifying disabilities, these changes being related to the increased attention

Table 1.1. **Percentages of students with disabilities in 1992, in different types of placement: Australia as a whole, compared with New South Wales**

	Australia	New South Wales
Special school	28	21
Special class	27	46
Ordinary class	45	33

being drawn to disabilities by the integration programmes which developed over this period.

Over 1988 to 1995 the number in special schools decreased from 4 617 to 3 789, that in special classes increased from 8 736 to 11 325, and that supported in mainstream classes rose from 1 135 to 5 042, the latter constituting some 0.7% of the total student population (McRae, 1996, p. 23). The proportional shift in placements can be seen from Table 1.2, with the figures drawn from the New South Wales 1997 Midyear Census demonstrating a continuing trend.

Table 1.2. **Percentages of New South Wales students with disabilities, in different types of placement, 1988 to 1997**

	1988	1995	1997
Special school	32	19	16
Special class	60	56	49
Ordinary class	8	25	34

Note: Figures rounded to nearest 1%.

It must be recognised that the increase from 1988 to 1995 in the percentage of students with disabilities being educated in ordinary classes is partly a reflection of the fact that there was an increase in the percentage of students recognised as having disabilities. The increase from 1995 to 1997, however, when the percentage of students recognised as having disabilities in fact went down slightly, must represent a genuine increase in the proportion of students with disabilities being educated in ordinary classes.

Provision

In reviewing Australian policy and practice with regard to the education of students with disabilities, Forlin (1997) noted a general trend towards their enrolment, at least in the first instance, in their local schools, with local schools increasingly taking on responsibilities for the allocation of special education support services.

As in Australia generally, New South Wales has three basic types of government provision for students with special educational needs: special schools, of which New South Wales had 104 in 1995, and which are known as Schools for Specific Purposes (SSPs); special classes, which existed in 465 of the state's 2 084 ordinary schools and which are known as Support Classes; and ordinary classes, with or without special help (McRae, 1996, p. 26).

By mid-1997 the number of special schools was down to 98, providing for 0.5% of the state's total school enrolment. Aboriginal and Torres Strait Islander students constituted 7% of the special school population but only 3% of the school population generally (New South Wales Department of School Education, 1997*b*).

Against the general trend towards a reduction in special school places, and in order to reverse a perceived trend towards an increase in school violence, two further special schools were being planned, each for 42 students with severe behavioural difficulties. At the time of the visits the posts of principals were being advertised in the department's *School Education News*.

In 1992, in 1 242 schools (60% of the total number) students with special educational needs were being supported in ordinary classes, either through State Integration Funding or through Commonwealth Funding (McRae, 1996, p. 26). By the time of the visits, State Integration Funding had spread to the extent that it was supporting students in 1 397 schools, with the number of students supported through this funding set to rise from 3 976 at the end of 1996 to 4 814 at the end of 1997.

The study of schooling in Australia conducted by de Lemos (1994, p. 80) included a count of staffing in a weighted sample of 57 special schools, with an average enrolment of 49 students per school. Some 42% of staff were teachers who had completed a specialist training in special education, 12% were teachers without this specialist training, 26% were teachers' assistants, 9% were concerned with various forms of therapy and counselling, and 11% had secretarial, administrative or maintenance roles. Overall student/teacher ratio was 4.9 to 1 and the ratio of students to teachers plus their assistants was 3.3 to 1.

For students with disabilities in the Australian primary schools sampled, the ratio of students to teachers plus aides was 5.1 to 1 (McRae, 1996, p. 91) and in secondary schools it was 5.2 to 1 (*op. cit.*, p. 99). These ratios do not take account of the fact that many of the students were also being helped by the teachers of ordinary classes. The statistics for 1994 presented by the Ministerial Council on Education, Employment, Training and Youth Affairs (1996*b*, p. 57) place this in context; overall student/teacher ratios in Australian government schools were 18.3 to 1 at primary level and 12.4 to 1 at secondary level.

Staffing allocations for special education in New South Wales in 1996 were such that each special education teacher was designated according to a specific category of disability, age range and type of placement, with as many as 88 designations overall, and student/teacher ratios varied in accordance with this designation.

For special classes in the state's ordinary schools, class size ranged from a maximum of 18 to 1 in some of the classes for students with mild intellectual disabilities (intelligence quotient 56 to 75), through 10 to 1 for physical disabilities at primary level, down to a minimum of 6 to 1 for severe intellectual disabilities (IQ below 30), sensory impairment, and emotional or behavioural difficulties. In special schools, class size ranged from 12 to 1 down to 5 to 1 (McRae, 1996, p. 14). This can be seen in the context of New South Wales student/teacher ratios generally, which in 1994 were 18.9 to 1 at primary level and 13.0 to 1 at secondary level (Ministerial Council on Education, Employment, Training and Youth Affairs, 1996*b*, p. 57).

Teachers' aides were allocated by means of complex formulae, including sliding scales. For example, three to four special classes for students with mild intellectual disabilities would share a full-time aide. At the other extreme, a class of six students with severe intellectual disabilities would attract one full-time aide.

In addition to the state's main staffing allocation, there is an allocation, through the State Integration Funding scheme, which has been increased over the years since its inception in 1986 and which by 1996 was sufficient to pay for 117 teachers and 159 teachers' aides (McRae, 1996, p. 21).

The organisational framework within which the state's school provision is set changed radically in 1996, with a move from 10 regions to 40 districts, governed centrally with a view to ensuring that policy and practice would be consistent across these newly formed units. At the time of the visits the state's framework for education was still subject to significant change, with the department's title having become "Department of Education and Training" during the previous week and with associated revision of staff responsibilities imminent.

Policy

Equity is a well established principle in Australian education (Ministerial Council on Education, Employment, Training and Youth Affairs, 1994) and the country's special education policies, as reviewed by Forlin (1997), also reflect the underlying principle of placement in the least restrictive environment, although there are appreciable variations, from one state or territory to another, in the extent to which these principles are followed in practice.

In New South Wales, state policy for special education declared in 1993 that "it is the policy of the Government of New South Wales that people with disabilities should be able to live in and be educated within their own communities. This policy is based on the principle of *Normalisation*, that is, the creation of a lifestyle and set of living conditions for people with disabilities which are as close as possible to those enjoyed by the rest of the population". The New South Wales Charter for Equity in Education and Training, in operation at the time of the visits, included as one of its five principles the following statement:

> "The diversity of the population is recognised and valued by inclusive approaches to the development, conduct and evaluation of programs."

The current New South Wales Department of School Education (1997*a*) document "Special Education Policy", however, was explicit in presenting the view that some students may require special education in segregated settings, and it seemed very likely that the range of provision on offer for the foreseeable future would include some special schools. The first of the policy document's 14 stated objectives was to:

> "... provide an equitable and flexible continuum of Special Education services (regular classes, support classes in regular schools and special schools) to allow for appropriate education choices which cater for the needs of each student".

Legislation

Australia's Commonwealth Disability Discrimination Act of 1992 was affirmed through the New South Wales Anti-Discrimination (Amendment) Act of 1994. As reported by McRae (1996, p. 34), it made it unlawful for an education authority to discriminate against a student, on the grounds of disability, by denying access to any benefit provided by that education authority, unless the student would require services or facilities that the provision of which would impose an unjustifiable hardship on the educational authority.

The New South Wales Disability Services Act of 1993, as reported by McRae (*op. cit.*, p. 33), stated that persons with disabilities, as with other members of Australian society, have the right to ensure that their specific needs are met. They include the right to live and be part of the community, the right to realise their individual capacities for development, and the right to services which will support their attaining a reasonable quality of life.

Guidance

The national study of schooling for students with disabilities, commissioned by the Australian Education Council, found that in all states and territories there had been extensive reviews of policies and practices, and that in most states detailed guidelines had been developed relating to the education of students with disabilities, particularly in relation to identification, assessment, and the development of individual education programmes (de Lemos, 1994, p. 200).

In implementing its Special Education Plan in 1994, the New South Wales Department of School Education issued its draft "Model of Support for Students Experiencing Learning Difficulties", which provided guidance on the kinds of help that could be provided and the kinds of support services available (Ministerial Council on Education, Employment, Training and Youth Affairs, 1996*a*, p. 21).

Following consultation arising from this document, one outcome was the appointment in 1996 of a learning difficulty co-ordinator for each of the newly formed 40 educational districts in New South Wales. Another outcome was advice, to each primary and secondary school, to establish within the school a learning support team.

In recent years, staff of the state's special education directorate, sometimes in collaboration with other groups, have been particularly active in producing written guidelines for teachers and others concerning various aspects of special education, including one on managing students with attention deficit hyperactivity disorder (New South Wales Department of School Education, 1995) and one on helping young children with special learning needs in their transition to school (New South Wales Department of School Education, 1997*g*).

The department's curriculum directorate has published guidelines for teachers on implementing the Reading Recovery programme (New South Wales Department of School Education, 1997*c*).

Staff of the New Children's Hospital and the New South Wales Department of School Education collaborated to produce substantial guidance (Stevens *et al.*, 1996), in the form of a manual running to over 200 pages and distributed free to all schools, on the educational needs, medical conditions and equipment requirements of students with physical disabilities. Similarly, Department of School Education staff produced and distributed a manual addressing the educational needs and resources requirements of students with visual impairment (Telec *et al.*, 1997).

At the time of the visits, publication of comprehensive guidance, in the form of another document running to over 200 pages, the "Special Education Handbook for Schools" (New South Wales Department of Education and Training, 1998), was imminent. The drafted document included reference to the procedures to be adopted in appraising the needs of and providing for students with disabilities and learning difficulties, descriptions of the various within-school and outside-school support services available, and outlines of the aims and functions of the various integrated and segregated placements in existence across the state.

During the 1990s, the New South Wales Board of Studies has been developing curriculum support documents for students with disabilities in the Key Learning

Area (KLA) of English and in that of personal development, health and physical education. Within the English KLA, by the time of the visits, interim support documents had been published in aspects of communication and of literacy (Board of Studies NSW, 1997*a* and 1997*b*). The board had also developed alternative means of assessing the academic performance of students whose disabilities are such that conventional examinations place them at an unfair disadvantage.

Funding

Total expenditure on special education in New South Wales was calculated (McRae, 1996, p. 13) to consist of 7.8% of the total education budget in 1995-96, having ranged between 7.2% and 7.9% in the three years previously. This covered 2.7% of the student population with identified disabilities, as well as the cost of the state's support teachers for learning difficulties, who worked in relation to students with special needs more generally. It would, however, be less than the extra cost of educating all students with special educational needs, as it did not include expenditure on the Reading Recovery programme.

Staffing accounted for some 75% of the total special education budget. The Australian government's contribution to the state's special education provision, made through the National Equity Program for Schools (NEPS), was proportionally very small, accounting for only 3% of the state's special education budget. Transport costs were significant, using up some 7% of the state's special education budget (*op. cit.*, p. 19).

Teachers working in special schools and special classes, along with itinerant special education support staff, receive in addition to the normal teacher salary a "Handicapped Children's Allowance", which stood at USD 4.58 (AUD 6.14) per teacher per day in 1996 (*op. cit.*, p. 14). As class teachers with students with disabilities in their mainstream classes do not receive this allowance, it may act as a disincentive to inclusion.

The State Integration Funding, sufficient in 1996 to pay for 117 teachers and 159 teachers aides was at that time shared among the regions in accordance with their total numbers of students. Individual schools then applied to their regional authorities on the basis of their having individual students with disabilities who, given extra help, could be educated in ordinary classes. Allocations were reviewed at regional level twice a year, numbers of applications increased rapidly over the years and by 1996 about two thirds of them were receiving some level of funding (*op. cit.*, p. 21).

Following the state's re-organisation into 40 districts in 1996, the review of allocations was placed on an annual basis with, in accordance with the Ministry's intention to develop more uniform provision across the state, districts' submissions being considered at state level. For the 1998 school year, the forms to be completed by schools intending to bid for funding support were accompanied by guidelines (New South Wales Department of School Education, 1997*h*). These guidelines stated that the allocation of funds was not automatic and depended on five basic criteria:

- The student is enrolled in a regular class.
- Additional support is essential to the provision of an age-appropriate programme.
- This support meets individual needs that cannot be met through in-school resources already available.
- The support includes an individual education plan.
- The support encourages the student's maximum independence.

A separate form was to be completed with respect to each student for whom funding was being sought. On the form the principal was asked to indicate the total number of days for the coming year of teacher time and teacher support time being bid for. The latter had to be expressed in hours; whereas a teacher day was 6 hours, a teacher's aide day was 6.25 hours. The form had to be completed with respect to level and type of disability, scores on tests, a description of need (curriculum access, personal care, mobility, communication, social skills), support strategies intended, and student outcomes anticipated.

The principal was also asked to list specifically the support resources already available in the school, in terms of hours per week and the various kinds of support, both for the student in question and for the other students with special needs. The list included six different kinds of itinerant support teachers, support teachers for learning difficulties, teachers on the early school support programme, Aboriginal education assistants, and teachers' aides.

The 1998 guidelines explained that recommendations to the state for funding support would be determined by the district committee and based on the following three priorities, only the first two of which would be likely to attract funding:

- **Priority 1: high support needs.** Students whose initial or continued school enrolment in a regular class and the delivery of their individual education programme are dependant on additional resource provision. These students generally require continuous and extensive daily assistance, support or supervision.
- **Priority 2: moderate support needs.** Students for whom access to age-appropriate educational programs and outcomes within a regular class is limited without additional support. These students generally require substantial and frequent daily assistance, support or supervision.

- **Priority 3: low support needs.** Students for whom access to age-appropriate educational programs and outcomes within the regular classroom would be enhanced by additional support.

Estimating comparative costs of educating students in different school settings is notoriously difficult. At national level, the results of the 1992 survey by de Lemos (1994, p. xvix) suggested that, if the average annual cost per student of educating children without disabilities were taken as the baseline, then the expenditure on educating students with disabilities in ordinary schools would be just under two and a half times this figure and the cost of educating students in special schools would be just over three times this figure. [The Ministerial Council on Education, Employment, Training and Youth Affairs (1996*b*, p. 36) data indicated that in 1993-94 the average cost per student in Australia as a whole was USD 3 553 (AUD 4 757).]

Within New South Wales, information gathered by McRae (1996, pp. 70-74) indicated that expenditure per student over the 1995-96 year on students receiving special education was some 2.4 times that on educating students generally.

Training

Over 1990 to 1992 a project committee established by the Department of Employment, Education and Training (1993) reviewed nine training packages, selected from 111 submitted, which members of the committee considered to constitute good practice in helping teachers and others meet the needs of students with disabilities in regular classrooms. Conclusions, reported in the previous OECD project (OECD, 1995*a*, p. 185) were that essential elements of successful integration included a supportive school environment generally and professional development programmes that had a theoretical base, raised awareness, provided practical training, and secured whole school commitment.

In the national sample collected by de Lemos (1994), among the teachers in special schools, 41% had completed a unit in special education during initial training, and 78% of the total had completed a specialist degree or diploma course (*op. cit.*, p. 83). Among teachers specialising in special education in ordinary schools, 35% had completed a unit in special education during initial training and 69% had completed a specialist degree or diploma course (*op. cit.*, pp. 93 and 101). In special and in secondary schools, almost all those who had not completed the advanced training were currently undertaking it, but in primary schools this was so in fewer than half the cases.

From 1994 the New South Wales Department of School Education required all recruited teachers to have completed a mandatory 13 week pre-service unit in special education. By 1996 all 10 tertiary institutions providing initial teacher training in the state had these units up and running, but only four of them included a practical element. In response to a survey (McRae, 1996, p. 17), most students found the focus on individual differences interesting and informative, but the main problem was lack of time to tackle the complex issues raised.

Teachers in New South Wales can undertake post-initial training leading either to a qualification in special education generally or to a specialist qualification in the field of sensory impairment. Qualifications can be at bachelor's degree, diploma or master's degree level.

Post-initial award-bearing courses include assessment, programme planning and teaching methods. Duration is for one year or its part-time equivalent, grants carry the condition that the recipient will work in special education following qualification, and most of the places are taken up by people already working in special education but without any special qualification. Numbers trained rose from 156 in 1992 to 218 in 1996 (*ibid.*).

In 1997, 42 New South Wales teachers were seconded to qualification-bearing post-initial special education training on a full-time basis and 126 on a part-time basis. A further 31 teachers were receiving some help with fees, mainly to enable them to update existing qualifications rather than to acquire new ones. Similar numbers were being planned for 1998. Most of the more recently developed courses run in universities in New South Wales have a distance learning mode, and some New South Wales teachers enrol on a distance learning basis for courses based further afield, in England for example.

Up to 1996, seven-week and ten-week courses were being run for teachers of students with learning difficulties, the most significant of these being the Learning Assistance Support Team (LAST) programme, which had provided training for some 1 500 of the state's teachers over the four years since its initiation in 1992. Also significant had been the in-service training courses in Reading Recovery, through which 500 or more teachers had been trained by 1996.

In addition there had been an early learning training package, which had included training for families, and a transition module, designed for teachers concerned with students leaving secondary schooling. In reporting these developments, McRae (1996, p. 19) commented on the lack of targeted special education training for mainstream teachers with significant numbers of students with disabilities in their classes.

Following the state's re-organisation in 1996 into districts, the New South Wales Department of School Education (1997*f*) funded a major initiative, the State Literacy Strategy, to provide training in literacy teaching. Through this strategy, the 40 district learning difficulties co-ordinators, the 40 district literacy consultants and other regional and state level personnel attended a two day training activity on how to run a three day "Making a difference" course.

The "Making a difference" course was then run in all districts and attended by over 2 000 support teachers for learning difficulties during 1997. The course included training to deliver a one day "learning support" course for class teachers. The supplied "learning support" course materials included outlines of training sessions, transparencies for overhead projection, handout sheets, videotapes, and associated manuals. The State Literacy Strategy also provided for further training in literacy assessment and in the development of individual literacy plans in schools, and facilitated the production and dissemination of an associated handbook.

Support services

Special education support personnel employed largely within ordinary primary and secondary schools in 1996 across the state included 1 125 support teachers for learning difficulties. Some of the teachers assigned at primary level shared their time across schools. Some students with disabilities had the support of a part-time teacher's aide, assigned and funded through the state's Integration Funding programme (McRae, 1996, p. 11). By the end of 1997 the number of support teachers for learning difficulties had risen to 1 150.

In the primary schools there were 47 reading support classes and 43 language support classes. In addition, there were plans to assign 100 extra teachers each year for four years to implement the Reading Recovery programme, the teachers having been trained by 14 tutors, themselves trained by a tutor trainer (*ibid.*). By the end of 1997 the number of tutors had increased to 20.

Also employed largely within schools, but managed by the state education department's student welfare directorate, were the school counsellors, with some 750 in post at the end of 1997. Generally they were teachers who had undertaken an extra year's training which included a psychology component. About two-thirds of them had topped this training up to master's degree level and had thus become eligible to be registered members of the Australian Psychological Society. Their duties included using psychological tests as part of the basis for advising on the educational placement of students with moderate to severe levels of disability.

In 1996, special education support services largely external to the schools employed the full-time equivalent (FTE) of the order of 500 staff statewide, collectively involved in work with more than 6 000 children (*ibid*). While these services are referred to here as external support services, most of the people concerned were in fact based within schools, but also offered their services to schools other than the ones in which they were based. By the end of 1997, the number had increased to almost 800, as indicated in Table 1.3.

Among the personnel referred to above, those employed in the state's ten special education centres offer assessment, in-service training and advice to teachers and families. In addition, some of the staff in the special schools offer similar services in relation to students with the more severe disabilities. In addition to the personnel referred to in the table, a multi-disciplinary team of five educators

Table 1.3. **Support service staff external to schools, New South Wales, 1997**

Number (FTE)	Role
6	Operational support leaders
40	Special education consultants
40	Learning difficulties co-ordinators
94	District guidance officers
40	Student services and equity co-ordinators
10	Special education support centre co-ordinators
10	Early learning programme co-ordinators
10	Itinerant early intervention teachers
44	Early school support programme teachers
93.5	Itinerant teachers for visual impairment
150.9	Itinerant teachers for hearing impairment
84	Itinerant teachers for behaviour disorders
30	Itinerant teachers for learning/behaviour difficulties
36	Itinerant teachers to support integration
41	Outreach teachers for emotional disturbance
1	Reading recovery programme tutor trainer
20	Reading recovery programme tutors
30	Transition teachers for secondary school leavers

and therapists, working from the Sydney-based Resource Support Unit, offers consultancy, professional development and the loan of equipment to people working with children and young adults who have severe disabilities.

Following the state education service re-organisation into 40 districts, each district established a committee through which its special education services are co-ordinated. The district special education committee's functions include making recommendations concerning funding targeted to provide equipment and teaching help needed to support individuals with learning difficulties or disabilities in ordinary classes. These recommendations are then considered at state level (New South Wales Department of Education and Training, 1998, Section 1.2).

McRae (1996, p. 13) found that the level of therapy services available generally to support the education of students with disabilities was perceived to be inadequate. While the therapy services provided by the Department of Health for students with physical disabilities in special schools designated specifically for them were reported to be satisfactory to users, the therapy services provided elsewhere by the Department of Community Services were thought inadequate, particularly in view of their frequently unfilled posts.

Parental and community involvement

Following the re-organisation of the state education system into 40 education districts, at the stage of enrolment into an ordinary school, the procedure described in the Special Education Handbook for Schools (New South Wales Department of Education and Training, 1998, Sections 2.1 and 2.2), with respect to a student thought to have a disability, is that the school principal, in consultation with the parents or other caregivers, co-ordinates an appraisal, conducted initially by members of the school's learning support team.

Appraisal focuses on the student's existing educational achievements, expected progress, and any needs for extra educational support in any of the key learning areas. It may include cognitive assessment by the school counsellor, who may use the Griffiths, Wechsler or Binet scales (New South Wales Department of Education and Training, 1998, Section 3.11), and may involve medical practitioners, therapists or other professionals.

If additional support is considered necessary, either within the ordinary class or through special class or special school provision, formal referral is made to the district's special education consultant, to whom the learning support team's appraisal documentation is forwarded. The school principal must inform the parents of the range of educational options available. The district's special education consultant, who is a key figure in placement, maintains information on special class and special school vacancies, liaises with parents, and submits recommendations.

Recommendations concerning funding targeted to support individuals with special needs in ordinary classes go from the special education consultant to the District Education Committee, and thence to the state's special education directorate. Recommendations concerning special class or special school placement go from the special education consultant to the District Placement Panel, convened by the District Superintendent or nominee. If parents dispute the outcome, their appeal goes to the District Superintendent.

Once a student's special education programme is implemented, it is to be reappraised regularly, with written reports provided to parents twice a year and a formal review meeting, to which parents must be invited, held at least once a year.

Prior to re-organisation into districts, the Principal Education Officers (PEOs) for special education in the 10 regions had been the key figures in decision-making. In his review, McRae (1996, p. 9) found that most parents, when invited to visit alternative placements, were able to make the final choice of placement, where there was a vacancy. Parents often met transport costs. In most cases placement could be made quickly but in some cases waiting lists existed and there could be a delay of two or three terms. Occasionally schools refused to enrol a child on grounds of lack of appropriate resources.

Community attitudes towards inclusion were considered by McRae (*op. cit.*, p. i) to be varied. The more negative aspects were illustrated in the following extract from his summary of key findings:

> "There are small but stubborn pockets of prejudice and fear from which barriers of exclusion are erected. But beyond that there is substantial controversy over the way in which education is best provided for these young people – segregated and specialised, or integrated and 'normalised'."

Curriculum development

The National Strategy for Equity in Schooling (Ministerial Council on Education, Employment, Training and Youth Affairs, 1994) included students with disabilities in its six priority groups and presented five areas for strategic action, including that of curriculum and assessment. In this area the National Strategy aimed to ensure that the students experienced success in programmes "across the full range of key curriculum areas as set out in the Common and Agreed National Goals for Schooling in Australia" (*op. cit.*, p. 8).

In furtherance of this strategy the Commonwealth Programs for Schools (Department of Employment, Education and Training, 1995) has financed a number of projects, including the National Equity Programs for Schools (Department of Employment, Education and Training, 1994) which support curriculum development schemes designed to help students with disabilities.

The national survey conducted by de Lemos (1994, p. 116) compared the curriculum on offer in different types of setting. Just over half the students with disabilities in ordinary classes were following the full mainstream academic curriculum, with almost all the remainder following some modification of it. In special classes, just over 60% were following a modified academic curriculum. In special schools, fewer than 5% were following a full academic curriculum and some 70% were following a non-academic curriculum, which focused on the skills required for daily living and on communication skills.

In 1991 the New South Wales Board of Studies, as reported by McRae (1996, p. 92), issued a paper which, while concerned with the curriculum for all students, had particular relevance for those with special needs. Outcomes-based education was presented as having the virtues of focusing on the product as well as on the process of teaching, of defining the syllabus, making goals clear to students, of assessing their achievements, of evaluating courses, and of publicising results.

The Board of Studies has also developed Generic Life Skills courses in each Key Learning Area (KLA), so that teachers can use them as bases for students' individualised educational programmes (Ministerial Council on Education, Employment, Training and Youth Affairs, 1996*a*, p. 20). The Special Education Handbook for Schools (New South Wales Department of Education and Training, 1998, Section 2.3) refers to the necessity for a student's individual educational programme to be within the framework of the syllabuses of the current key learning areas (six at primary level and eight at secondary level). A programme may be set within a single KLA, may draw on several KLAs or may be a literacy programme which is developed across all KLAs.

In 1996 the government of New South Wales increased its emphasis on, and support for, the Reading Recovery programme, first developed in New Zealand by Clay (1994) and subsequently adopted in various other countries, including Australia. The programme is designed to help children considered to be at risk of failure after the first year of reading instruction in school and includes individual instruction for 30 minutes daily over a period of up to 20 weeks.

Evaluation

The Australian Council for Educational Research study of schooling for students with disabilities identified (de Lemos, 1994, pp. xvi-xvii) a strengthening of the trend in Australia generally towards inclusive education, coupled with a recognition that for some students segregated education is more appropriate. Accompanying this trend there had been a decentralisation of services, improvement in provision through adaptations to staffing formulae, the development of appropriate curricula, and new initiatives enhancing transition to post-school experience. Parents were generally satisfied with provision, though some sought improvements in information services and provision for young children (*ibid.*).

It is general practice in New South Wales to review special education arrangements at least annually. Other reviews may occur twice a year if students are being supported in mainstream, more frequently on parental request and as often as twice a term if the students are helped by itinerant support teachers. The number of people present at reviews can be as many as 10, but the extent to which parents are involved was found by McRae (1996, p. 10) to vary considerably.

The feasibility study by McRae (1996) of developments in inclusive education across New South Wales was commissioned in October 1995 by the state's Minister for Education and Training. The study involved interviews with senior staff at state and regional levels, together with visits to more than 50 schools.

Key findings of the study (*op. cit.*, pp. i-*ii*) were that there had been substantial growth over recent years in supported placements for students with disabilities in mainstream classes, that this was generally of benefit not only to them but also to students without disabilities, that success required special skills and extra planning time on the part of teachers involved, that parental satisfaction was a necessary component of successful placement, and that any additional costs of successful integration tended to be "one-off" rather than recurrent. Initiatives carrying one-off cost elements included adapting premises, purchasing equipment and providing training, (*op. cit.*, pp. 73-74), though each of these activities incurred some recurrent expenditure as well.

While the feasibility study demonstrated that a continuum of support services and educational provision for students with special educational needs was in existence, it also produced appreciable evidence that teachers were pressing for more facilities (*op. cit.*, p. 12). There were waiting lists for places in special classes for students with mild intellectual disabilities and referrals of children with behavioural and/or emotional difficulties vastly out-numbered the capabilities of the support services to respond effectively to them.

In accordance with one of the recommendations of the report by McRae (1996), the state's Minister for Education and Training commissioned a review of existing services for dealing with behavioural problems among students. The resulting discussion paper (New South Wales Department of School Education, 1997*e*) reported that the department's current requirement that problems be diagnosed by psychiatrists or psychologists external to the schools led to inordinate delays.

The discussion paper recommended that more reliance be placed on in-school support services, notably on those provided by school counsellors, that at least two new special schools be established, that more training for teachers be provided, and that departmental services be co-ordinated by one directorate, that of student welfare. (Current departmental practice was to divide services between the student welfare and the special education directorates.)

In evaluating the extent and effectiveness of its Reading Recovery programme, the New South Wales Department of School Education (1997*d*) reported that 180 of the state's schools had introduced it in 1996, with 467 teachers participating, a third of year 1 students thus having potential access to it, and 17% of these students actually involved. Of the 3 551 students enrolled, two thirds successfully completed the programme. It was anticipated that provision would be increased to the extent that some 90% of year 1 students in New South Wales would have access to the programme, if they needed it, by the year 2000.

The "Schools for All" project (Special Education Consultative Committee, 1994), sponsored at national level by the Department of Employment, Education and Training, while conducted not in New South Wales but in the neighbouring state of South Australia, is of interest here, as it provided a useful indication of the feasibility of developing economically efficient inclusive education in an Australian setting.

During 1992 and 1993 four schools, two primary and two all-age, participated in the "Schools for All" project on an action research basis. Teachers made use of the Negotiated Curriculum Plan framework, along with teacher training and parent participation packages, and developed information packages providing details about good practice and suggestions about policy implementation at school level. However, the results of a follow-up study (Chapman, 1997) indicated that teachers had made only minor changes to their teaching.

Further developments

Findings of the Australian Council for Educational Research study (de Lemos, 1994, pp. XXVI) indicated a need for greater emphasis in Australia on the development among classroom teachers of the techniques required to teach students ranging widely in ability, and a need to monitor the progress of students with disabilities through to adult life, with a view to assessing the extent to which their education is meeting their needs.

Major issues for consideration arising from the New South Wales feasibility study by McRae (1996, p. *ii*) included the existing system whereby integrated placements were considered to be less well funded than segregated placements, the conventional practice of categorising and placing students by disability rather than in accordance with individual needs, the structural separation of ordinary and special education, and the need to provide special training for teachers new to educating students with disabilities.

The study's recommendations had been put out for state-wide consultation during 1997 and views had been collated. At the time of the visits, while the outcomes of the consultation phase were yet to be submitted to the cabinet, it was clear that the study had influenced the thinking behind several recent developments in special education.

B. The schools visited

Basic information

Visits were undertaken to schools in five of the state's 40 districts: three primary schools, one secondary school and one special school. As only a short time could be spent in each, there were not opportunities to sample classroom teaching and learning to any great extent or to explore all the issues identified in the study's framework. Consequently, views formed of the work being undertaken are impressionistic. Where a development is only referred to as occurring in one school, this should not be taken to imply that it did not exist in any of the other schools visited, as different aspects of the work were sampled in different schools.

All five schools were located in Sydney suburbs and the four ordinary schools recruited from their neighbourhood catchment areas, with students having a right to placement in their local schools. However, if a child presented for enrolment was thought by the principal to have educational needs which could best be met in a segregated special school, the child's needs would be appraised formally prior to school enrolment. It was said, though, that in a circumstance of this kind the district's support staff external to the schools would be very active in ensuring that there would be minimal delay in offering the child a place in a school. Placement, either in the neighbourhood school or in an alternative school, would be subject to the agreement of the child's parents or carers.

Each of the three primary schools was sited in a socio-economically mixed area, with a significant proportion of the students on roll coming from families in which English was not the first language.

In the second primary school visited, only 19% of the students on roll came from families in which English was the first language; 18% of the students were Vietnamese, 9% Chinese, and some 10 different first languages were represented altogether. In this school, 14 of the students were members of single parent families. The third primary school visited, which had a mixed but largely middle class catchment area with many owner-occupied homes, had an even lower percentage – 11% of students from predominantly English-speaking families, with over 25 languages represented in the school.

The secondary school was said to be in an area in which economic disadvantage was particularly high.

General levels of staffing in the ordinary schools, with numbers expressed as full-time equivalents (FTEs), are summarised in Table 1.4.

Table 1.4. **Number of students and teaching staff in the ordinary schools visited**

	Students	Teachers	Student/teacher ratio
1st primary school	112	7	16 to 1
2nd primary school	462	30.7	15 to 1
3rd primary school	680	37.1	18 to 1
Secondary school	1 206	86.5	14 to 1

Within the ordinary schools visited, the proportions of students identified as having special needs to the extent that they required extra staffing resources varied. In considering this extra staffing, it is important to take account of the appointment of teachers' aides, who were not qualified teachers, who worked under the supervision of the classroom teachers, and whose rates of pay were about half those of teachers.

Support was allocated at state level (through the State Integration Funding programme) for extra help in ordinary classes, or at district level for special class enrolment. Places in the special classes were allocated through a formal procedure in which the district special education consultant played a key role and children in the special classes were drawn from a catchment area wider than that of the school. Table 1.5 summarises staffing levels for special education in the ordinary schools.

OECD 1999

Table 1.5. **Extra staffing for students with special needs in ordinary classes**

	Students	Teachers	Aides	Student/adult ratio
1st primary school	7	0	1	7.0 to 1
2nd primary school	23	1.6	3	5.0 to 1
3rd primary school	8	0.5	0	16 to 1
Secondary school	6	0	2.2	2.7 to 1

Table 1.6 **Staffing for students in special classes**

	Students	Teachers	Aides	Student/adult ratio
1st primary school	7	1	1	3.5 to 1
2nd primary school	0	0	0	n/a
3rd primary school	27	4	3	3.9 to 1
Secondary school	66	10.2	3	5.0 to 1
Special school	92	14.5	12.3	3.4 to 1

In order to provide some basis for comparison, Table 1.6 also includes staffing levels in the special school. It must be borne in mind, however, that the students with special needs on roll in the different schools are not directly comparable. The average level of ability in the special school, in which two-thirds of the students had severe disabilities, was lower than that among students with disabilities in the ordinary schools.

The first primary school visited also housed a special class of four children with autism, paid for by the Autistic Association and staffed by one teacher and a part-time (0.5 FTE) teaching assistant. While the class was not managed by staff employed within the state school system, the children did participate in school activities such as assemblies and sports carnivals, and spent some of their time in ordinary classes.

In the secondary school, the six students on the integration programme were all being given extra support because of physical disabilities. The special classes were specific to physical disability, mild to moderate learning difficulty or to emotional/behavioural disorder, and some of the students attending came from other schools' catchment areas.

In addition to the teachers referred to in the tables above, each primary school visited had the services of a school counsellor on a part-time basis, ranging from 0.15 FTE in the first school visited to 0.4 FTE in the third, and the secondary school had a head of support services and 1.2 FTE support teachers. The primary schools occasionally had the services of speech therapists employed by the Department of Community Services and the third one visited also had the support of a part-time occupational therapist (0.2 FTE).

In addition to the teaching staff included in the table, the special school had various other kinds of regular professional support: a school counsellor, employed by the education service, and various therapists, employed by the Department of Community Services. Altogether, they brought the school's overall student/adult ratio down to 3.1. Details can be seen in Table 1.7.

Table 1.7. **Professional support, additional to teaching support, in the special school**

Type of support staff	Number in full-time equivalents
School counsellor	0.4
Music therapist	0.4
Occupational therapist	0.6
Physiotherapist	0.4
Speech therapist	0.8

Work seen and discussed

In the primary schools visited, the teachers of the children provided with extra help through the State Integration Funding programme had not only the support of special education specialists employed within the schools but also access to the advice of those based at district level. From discussions with them it was clear, however, that the major responsibilities for day-to-day work with children with special needs lay with the class teachers themselves, and with the classroom assistants who were generally assigned to them on a part-time basis.

Various lessons were seen in the schools, though because of time limitations most were sampled only briefly. The following examples are for illustrative purposes only, and are not necessarily representative of work with the state's students with disabilities.

Some individual withdrawal work with students on Reading Recovery programmes was seen. It was systematically undertaken, carefully recorded, and the students' individual education programmes were highly specific with respect to the literacy targets set and achieved.

Class teachers referred to lesson preparation for children with disabilities as being particularly time-consuming, to the extent that having to prepare special work for more than two children in the class would be likely to be more than most teachers could manage effectively.

In one school there was general heartfelt assent to one teacher's comments that the process of applying for extra help through the State Integration Funding scheme was time consuming, as much detail was required concerning the ways in which any help granted would be used.

Students with physical disabilities participating in the secondary school's integration programme had prepared formal presentations, through which they described their own experiences at the school. They valued the friendships they had formed with students without disabilities, most of whom they found supportive. Free time in the playground was clearly important to them. Timetabled activities that were liked included physical education, wheelchair sports in particular, and work with animals. The more academic subjects tended to be less popular.

In the special school, sex education lessons were seen, in which groups of students were being taken through exercises designed to help them to develop their understanding of behaviour appropriate to public settings: what they should do if approached by strangers, for example, and which parts of their bodies they should keep covered.

Accommodation and resources

The first primary school visited was built in 1924, and although it had been modernised since, its having classrooms on different floors could limit the mobility of children with physical disabilities. The other two were much newer, one dating from 1975 and the other from 1993, and both were architecturally more in keeping with present-day educational styles.

The secondary school, built on different floors, had a chair lift to take students with physical disabilities up the main staircase, but it worked very slowly and did not appear very suitable for people in wheelchairs. A workshop, a laboratory, a studio and a food technology room were all seen to have their work surfaces well adapted for use by students in wheelchairs, and in some rooms air conditioning had been installed for the benefit of a student lacking body temperature control.

In the secondary school, one student with severe physical disabilities was able to communicate by using head movements to create Morse code signals which a computer programme could convert to typescript and to simulated speech.

Staff development

Some of the teachers' time allocated through the State Integration Funding programme was for in-service training, designed to help class teachers develop the special education expertise they needed. In the secondary school, subject teachers were provided with notes, compiled by the school's special education staff and the district's integration adviser, concerning each student involved in the integration programme. The notes included information about the student's disability and about relevant teaching methods. The same authors also provided notes for subject teachers on effective ways of working with classroom assistants.

Curriculum

In all the schools visited, the students funded as having learning difficulties or disabilities were following individual education programmes set within the framework of the nation-wide key learning areas (KLAs).

The special school had a particularly well worked out set of curriculum pathways, through which students not yet able to engage in the conventional curriculum could start on a simpler but related developmental programme. As students became able to succeed on the developmental programme, which included aspects of communication, control of movement, play and self-care, they were able to move on to aspects of subjects such as English, mathematics, physical education, science, technology, and the performing arts.

Organisation

Organisationally the three primary schools varied considerably, with the first having some special class provision serving both the school and the district more generally, the second having mixed ability classes throughout, and the third not only having special classes but also having the other students, at each age level of compulsory schooling, assessed and then divided out into classes consisting of children of higher, middling and lower ability.

In the third primary school visited, one strategy designed to avoid disadvantaging the lower ability classes was to assign the less experienced teachers to the middle level classes. This streaming system had started in 1997, following consultation with parents, and, with strong parental support, was set to continue through 1998.

The six students with physical disabilities involved in the secondary school's integration programme spent most of their time in ordinary classes. The school operated a peer tutoring system, whereby older students without disabilities ran periodic tutorial sessions for younger students with learning difficulties, mainly to help them deal with their literacy problems.

Assessment

Most of the individual education programme records seen in the ordinary schools were concerned with literacy acquisition, and in this area of the curriculum they were precise and objective. In the special school, individual education programmes records were maintained across the curriculum as a whole; throughout, they were particularly well designed, with due attention paid to the assessment of students' progress on them.

Liaison

One of the primary school counsellors referred her fortnightly attendance, along with some nine counsellors from other schools in her district, at one of three parallel sets of group meetings held by the district guidance officer. Activities served both administrative and professional development purposes, including discussion of problems experienced.

In the same primary school, the visiting head of the local unit for emotionally and behaviourally disturbed students in the 6 to 12 year age range described the unit's programme of cognitive behavioural therapy. The students had opportunities to discuss their problems and were helped to become less impulsive, learning to be more reflective and to anticipate the consequences for themselves and others of their actions. They remained on the rolls of their own schools, which they continued to attend for one or two days a week during the first part of their eighteen month to two year involvement with the unit, increasing the proportion of their time spent in the ordinary school as they progressed.

The first primary school visited involved parents and other volunteers in offering a programme for students with reading difficulties, run on four mornings each week, with school staff providing on-the-job training for the volunteer tutors.

In the secondary school visited, most of the parents of the students on the integration programme attended a group discussion. They spoke warmly of the school's very positive approach to educating students with disabilities, contrasting this with other secondary schools in the district. One spoke of having had to press continually and persistently in order to get the district authority to accept her daughter's right, notwithstanding her disability, to be educated in an ordinary school.

In the special school, with the help of Commonwealth integration funding, various moves towards inclusive education were being implemented. Some students from ordinary schools visited the special school, for example to teach social skills or participate in musical activities, special school students participated in festivals and other public events involving one or more ordinary schools, and some special school students attended ordinary schools for some of their lessons.

In attending ordinary schools, the special school students were helped considerably by the fact that the special school curriculum had introduced them, albeit on a modified basis, to the key learning area (KLA) work being engaged in by the students in the ordinary schools.

In the special school, written records of the students' progress on their individual education programmes were shared with the parents, who had their own copies of the individual education programmes. If they wished, parents could choose their own individual education programmes targets, in consultation with the teachers, and they could collaborate with teachers in pursuing joint targets. While some engaged in the teaching to this extent, others chose not to. They were not pressed to do this, as for many of the parents the tasks required just in looking after their children generally were more than sufficiently onerous.

Conclusions

Special education policies in Australia in the 1990s reflected the underlying principles of equity and of placement in the least restrictive environment, although there were appreciable variations from one state or territory to another in the extent to which these principles were followed in practice. Some 12% to 20% of Australia's three million students of compulsory school age were thought to experience learning difficulties but the proportion considered to have one or more specific disabilities was much smaller. New South Wales, the state chosen as the focus for this study, was fairly typical of the whole country, with some 2.6% of the total in the state education system identified as having disabilities.

Despite the fact that just over a third of Australia's school age students resided in New South Wales, the state was not typical of the country with respect to the types of schooling that students with disabilities received. In New South Wales, proportionally, fewer attended special schools and ordinary classes, with 1.7 times as many placed in special classes. Over the decade the trend, however, echoing that in Australia as a whole, had been decidedly towards inclusive education, with the proportion in ordinary classes increasing, that in special classes decreasing, and that in special schools down at the time of the visits to 0.5% of the state's total school enrolment. State policy was explicit in describing a continuing need for special class and special school provision for some students.

While comparative costs of the education of Australian students with disabilities in different settings were not known in detail, attempts had been made to arrive at some approximation. The indications were that the average annual cost per student with disabilities in the ordinary school was just under two and a half times that for a student without disabilities, and that the per capita cost for students in a special school was just over three times that for ordinary students.

It can safely be assumed, however, that students in special schools generally have greater needs for educational support than do students with disabilities in ordinary schools. In considering costs, therefore, these two groups of students with disabilities cannot be regarded being directly comparable.

Within New South Wales, whereas support for students with special needs had in the past varied appreciably across its ten regions, a greater consistency was being established through the state's recent re-organisation into 40 districts with similar administrative structures and stronger links with the state's Department of Education and Training.

In attempting to support the education of students with disabilities in ordinary schools, the New South Wales Department of Education and Training relied extensively on the provision of special education support services, with many personnel sharing their time across schools from a base either in one of the schools or in a district office. Many different specialisms existed, and at the time of the visits some people had their professional links at state level with one section of the department and some with another. These arrangements, however, were under review.

Students with disabilities followed individual education programmes, and particularly good examples were seen in the special school visited. In ordinary classes in ordinary schools, where it was considered necessary, implementation of the programmes was enhanced by the assignment of extra help, usually on a part-time basis and often by helpers not qualified as teachers. Assignment of extra help was rigorously controlled at state level, was monitored both within the school and at district co-ordinator level, and was being reviewed annually.

An extensive review of inclusive education policy and practice in New South Wales had been undertaken only recently, and its recommendations were under active consideration at the time of the visits. Findings had indicated that the substantial developments in educating students with disabilities in ordinary classes in recent years had been of benefit both to them and to students without disabilities, that success required careful planning on the part of teachers, and that parental satisfaction was a necessary component of successful placement.

In Australia generally, over recent years detailed guidelines have been developed in relation to the education of students with disabilities. This was particularly evident during the visits in New South Wales, where it involved extensive collaboration across departments. Support staff at state and district levels had also been very active in contributing to in-service training for school staff in special education, particularly in the field of teaching children to read. Arrangements whereby district personnel had been familiarised with training packages, had used them to help support teachers based in schools, and they in turn had used them to train class teachers, were impressive.

2. Canada

Introduction

This part of the publication is concerned with the focused visits to the Canadian province of New Brunswick, undertaken during October 1996. As the Canadian provinces are largely autonomous, for present purposes New Brunswick is being treated as though it were a "nation-state". Consequently, New Brunswick, rather than Canada as a whole, is the unit of study, with the education districts within the province being treated as regions. Where appropriate, however, brief reference is also made to the trans-Canada context.

In the context of OECD countries generally, as indicated in the report arising from the previous project (OECD, 1995*a*), over a decade or more New Brunswick has had the lead in inclusive education, placing fewer and fewer children in segregated settings, so that now almost all children of compulsory school age are educated in ordinary schools. Among Member countries of the OECD, only Italy has achieved inclusive education of this order on a nation-wide basis.

Prior to the visits, senior officers concerned with the province's special education policies and practice received a framework document which outlined issues to be explored at provincial, district and school levels and were invited to pass copies to the schools to be visited. Also prior to the visits, information concerning relevant policies and practice was compiled from reports previously commissioned by the OECD (see OECD, 1995*a*; Evans, 1998; Perner, 1997; Porter, 1997), and this too was sent on in advance.

During the visits, information was gathered from New Brunswick Department of Education office documentation, through interviews with senior departmental staff at provincial level and within three districts, and through visits to 13 educational establishments. The visits were undertaken by two consultants to the OECD, one focusing on the English-speaking population and one on the French-speaking. The former visited for a total of six working days, the latter for four, and the two worked together for part of this time. The visit to the francophone district was reported in its own right (Combes, 1996) and its main findings incorporated here.

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

A. The provincial pattern

Prevalence

In New Brunswick, the only officially bilingual province in Canada, 34% of the population has French as its first language. Within a total Canadian population approaching 30 million (OECD, 1995*b*), the province's population in 1994 was approximately 726 800. Within the province's total school age population of 136 596, there were 45 298 in the francophone sector. The "at risk" population was considered by the Department of Health and Community Services in 1992 to constitute some 15% of the total (Evans, 1998).

As indicated in the report arising from the previous project (OECD, 1995*a*, p. 96), in 1991 10.8% of the school population were considered to be exceptional, this percentage including gifted children as well as those with learning difficulties, and including 0.2% with visual impairment and 0.3% with hearing impairment. In 1996 the proportion of exceptional children in the province was considered by education department representatives to continue to be within the range 10% to 13%.

Provision

Educationally, New Brunswick is divided into 12 anglophone and six francophone school districts, with 398 schools in the former and 132 in the latter. There is a geographical overlap between anglophone and francophone districts, with each of the two sets of districts covering most of the province (Atlantic Provinces Education Foundation, 1996, p. 11). The boundaries of the school districts are not co-terminous with those of the divisions within the province's Department of Health and Community Services, which has seven regional health authorities.

Throughout the province's education system, children with special educational needs are educated in ordinary schools, almost entirely on an integrated basis. A dominant system within the schools is one whereby children with special needs have access, should it become necessary, to increasingly specialised learning programmes and increasing advice and support from specialist teachers (OECD, 1995*a*, p. 27).

It should be pointed out that two groups of children, some with SEN, who reside in New Brunswick are not being considered here. These are children who attend private schools and some 1 200 Native American children who live in the province's 15 reservations and who attend schools run federally.

Statutory schooling runs from grade 1 to grade 12, with entrants having to reach the age of 6 years on or before December 31st in the year they enter grade 1. Provision is made at kindergarten level for children aged 4/5+ and the extension of statutory schooling downwards to include this age group is under consideration.

Students completing grade 11, generally aged 16/17+, are expected to continue their high school education through to the end of grade 12.

Statistics gathered by the New Brunswick Department of Education (1995*a*) indicate that the total school enrolment stood at 138 686 in 1993-94, was 136 596 in 1994-95, and is expected to be down to about 130 000 by the turn of the century. In 1995, average class size was 22.5 at elementary level and 25.2 at secondary level, with an overall pupil/educator ratio (PER) of 16.7 to 1. (Among the "educators", 82% are class teachers, with the remainder including principals, departmental heads, guidance counsellors, co-ordinators and psychologists.)

Policy

The province's mission statement for education is "... to have each student develop the attributes needed to be a lifelong learner, to achieve personal fulfilment and to contribute to a productive, just and democratic society" (New Brunswick Department of Education, 1995*a*).

A ministerially endorsed publication of the Student Services Branch of the New Brunswick Department of Education (1988) pointed out that Canadian policy favouring integration was stated officially as long ago as 1968, when the CELDIC report "One million children" advocated the education of all children in regular classrooms rather than in segregated settings.

It is clear from the set of papers edited by Porter and Richler (1991) and from the research reported by Crawford and Porter (1992) that subsequent practice in Canada has been variable, with New Brunswick taking a lead in innovation and with good practice cited across the provinces, but with developments in some areas facing obstacles such as policies which permit but do not require integration, unwillingness to divert public funding from segregated to integrated education programmes, and a drive towards greater standardisation.

The already cited 1988 publication of the New Brunswick Department of Education reviewed the province's progress in recent years towards inclusive education, set 1992 as the target date for the full implementation of integration, and called upon each school district to develop an overall plan for the achievement of this objective. Over 1991-93, representatives from the school districts continued to review progress and on the basis of their reviews were able to identify key indicators of success in establishing and maintaining inclusive education (New Brunswick Department of Education, 1994*a*).

Following the issue of an Office of Government Reform working paper, in 1984 the Cabinet of New Brunswick adopted a policy of co-ordinating support services to education, mainly to avoid duplication of professional services. Implementation of this policy has involved extensive co-operation across provincial government departments. Since 1988 the collaborative Support Services to Education have been administered by the Department of Health and Community Services, with the Department of Education currently contributing through its Student Services Branch (Evans, 1998).

Legislation

The key legislation carrying inclusive education forward in New Brunswick is the 1985 Act to Amend the Schools Act. This amending Act, often referred to as Bill 85, embodies the province's decision to integrate all pupils with disabilities into mainstream schools. As described in the province's "Working Guidelines on Integration" report (New Brunswick Department of Education, 1988), Bill 85 repealed earlier legislation, which had allowed the boards of public schools to refuse admission to some exceptional children. Bill 85 placed the emphasis on individual programming for exceptional pupils and students, within the age range from three to twenty one years, in ordinary classrooms.

Following Bill 85, every school in the province is required to provide inclusive education for all children in its age range and living within its catchment area, unless the school board can convince the Department of Education that "such placement proves detrimental to the needs of the child or other children" (New Brunswick Department of Education, 1988, p. 3). The Schools Act of 1992 (reported in OECD 1995*a*, p. 96) requires school boards to establish processes whereby parents can appeal against any decisions the boards make concerning their children's education.

Guidance

The province's "Working guidelines on integration" (New Brunswick Department of Education, 1988) outline expected outcomes of Bill 85 with respect to the activities of school boards and associated professionals, to the rights of parents and to the organisation of support services. Various curriculum documents, for example those produced by the Foundation for the Atlantic Canada English Language Arts Curriculum (1995) and the Foundation for the Atlantic Canada Science Curriculum (1995), include some reference to the need to adapt teaching to meet the needs of children with diverse abilities and interests.

Guidance aimed specifically at inclusive education practice includes a document outlining features of schools' best practices for inclusion (New Brunswick Department of Education, 1994*a*) and guidelines for teacher assistants (1994*b*). The department has also collaborated with educational associations in sponsoring the production, by a panel including teachers and educational consultants within the province, of guidelines on discipline and classroom management (New Brunswick Teachers' Association, 1994).

Funding

Special education is an integral part of ordinary schooling and funding is delegated to the individual school district on the basis of a block formula that assumes a given percentage of children with special needs, although there are exceptions in certain circumstances (OECD, 1995*a*, p. 79). The school's managing body can allocate and if necessary change resources informally without reference to any outside group and parents can be involved in choosing from a range of in-school services (*op. cit.*, p. 29).

Statistics gathered by the New Brunswick Department of Education (1995*a*) indicate that in 1993-94, 64% of the province's overall school board expenditure was accounted for by instruction, 12% by plant operation and maintenance, and 10% by transport and other educational services, with the average cost per pupil being USD 4 018 (CAD 4 966). In interview, departmental representatives estimated salary costs to account for some 85% of the recurrent education budget.

Training

All students attending initial teacher training courses in New Brunswick are said to be introduced to a wide range of teaching strategies and outcomes in order to help meet the needs of all students. Formerly, university students taking courses in education were required to include one special education course (OECD, 1995*a*, p. 60). However, in accordance with the philosophy of inclusive education, the special education programmes as such were closed some three years ago and all programmes now include a certain number of assignments concerned with children with special educational needs.

New Brunswick has four universities, three anglophone and one francophone. While there is some variation from one to university to another in the range of teacher training on offer, there is a general pattern of four years to graduation in a subject followed by eighteen months devoted to initial teacher training. There are in-service training courses concerned with learning disabilities and with counselling. Moncton University, which offers francophone courses, is running an innovative five year teacher training programme, with its first cohort of trainees due to complete their courses in 1999. Included are courses in educational psychology and in academic counselling (helping students in schools choose appropriate courses), and each of the five years of training includes a period of teaching practice.

Support services

The province's working guidelines on integration (New Brunswick Department of Education, 1988) describe the range of support services required to sustain integration. For the children, reference is made to curriculum modification, different evaluation procedures, adapted teaching methods, adjusted timetables, and physical alterations to school accommodation. For the classroom teachers, who must maintain the major responsibility for the children in their classes, people referred to as providing support include specialist teachers, the school principal, para-professionals contributing to classroom teaching, and parent and community volunteers. In addition, support for classroom teachers is expected through release time for planning, through visits to observe good practice, and through in-service training.

Among para-professionals, the teacher assistants who work under the direction of classroom teachers in implementing individual education programmes are key figures in sustaining inclusive education. While they are not generally qualified as teachers, it is expected that they will have graduated from high school and either will have completed an approved training course related to this work or will in some other way be able to demonstrate their abilities to deal with children (New Brunswick Department of Education, 1994*b*).

Support services external to schools and designed to help exceptional students there are run by the Student Services Branch of the Department of Education. Programmes managed by the Student Services Branch include those concerned with reducing drop-out, with counselling, with transition to work, with curriculum development, with professional development, with extra-curricular activities and with computer assisted learning (Evans, 1998). Guidance counsellors are allocated on the basis of one for every 500 students at grade levels 7 to 12. Psychologists are allocated on the basis of one to every 1 200 students in the primary school age range.

While the rate of school drop-out in New Brunswick continues to be lower than in the other provinces there has been concern over the past decade, as in Canada as a whole, about increasing numbers of children growing up in poverty and at risk of under-performing educationally and failing to enter employment. In 1995, as an extension of earlier Canadian initiatives, New Brunswick and other provinces introduced programmes entitled Youth Services Partnerships, designed to ameliorate these problems. Programmes increased individualised instruction, offered computer assisted learning, arranged peer tutoring, provided summer schooling, and facilitated transition to work. Professional development programmes for teachers included training in counselling.

The inter-departmental Omnibus Committee for Children and Youth co-ordinates the contributions of the different departments, establishes priorities and guidelines, manages funding, and resolves operational problems. The co-ordinated delivery of services is implemented by the Support Services to Education, contributed to by various departments and managed by the Department of Health and Community Services. In 1994 the Support Services to Education were reported to be serving some 3% of the school population.

Professionals providing support services in each of New Brunswick's seven health regions are responsible for developing and maintaining implementation plans, which they submit to a Regional Omnibus Committee. These regional committees are in turn responsible to the province's Omnibus Committee for Children and Youth. Implementation plans include an identification of the goals of the services, an account of their methods of achieving these goals, a record of the work undertaken, and an evaluation of progress made. In each of the 18 education districts, support services external to schools are organised on a holistic basis, with education, health and social work personnel seconded from their different authorities to work together in teams on a co-ordinated basis (Evans, 1998).

Parental and community involvement

Bill 85 (as reported by the New Brunswick Department of Education, 1988, p. 6) states that school boards shall ensure that parents are consulted when special education programmes are being considered, and that the parents have a right to participate in the development, implementation and follow-up of their children's individual education plans.

From September 1996, parental involvement in New Brunswick schools generally has been strengthened through the replacement of school boards by school parent committees, in which parents or their representatives constitute the majority of voting members, and which advise their school principals on matters such as the schools' policies, their improvement plans and their approaches to family and broader community involvement (New Brunswick Department of Education, 1996*b*).

Curriculum development

The intake age for New Brunswick high schools has varied to some extent from one school to another but from September 1995, following a provincial government report "Education 2000", it has been aligned into a four year programme, running from grade 9 to grade 12. In the anglophone districts, the programme has a two-year foundation block, in which students follow a common core curriculum, followed by a two year graduation block, in which they have opportunities to choose among various specialised courses. In the francophone district visited, the four year secondary programme does not have a foundation block.

Linguistically, the Province of New Brunswick is distinctive in Canada, not only by virtue of its being the sole officially bilingual province, but also by virtue of the relatively high proportion of the students in its anglophone districts who are taught in French immersion classes. In 1995, for example, 18% of its students were so taught: 22.5% in urban areas and 9.6% in rural communities (Atlantic Provinces Education Foundation, 1996, pp. 34-35).

Co-operative education programmes, which involve time evenly divided between work experience and related work in school, are followed by a substantial minority of students in the upper grades of high school, and students with special needs may follow them more extensively, for up to two or three years beyond statutory school age in some instances.

Changes to the curriculum are being initiated through the Atlantic Provinces Education Foundation (1995). This consortium, involving the education departments of New Brunswick, Newfoundland and Labrador, Novia Scotia and Prince Edward Island, is developing a common core curriculum for pupils and students in language arts, mathematics and science, through grades 1 to 12.

The provinces participating in this development have agreed on the curriculum outcomes which children are expected to achieve at different grades. In written English, for example, by the end of grade 6 they are expected to "use a range of strategies and techniques to extend and clarify selected drafts". Associated with these outcomes, and cutting across the conventional curriculum, are statements of "essential graduate learnings". These consist of attitudes, knowledge and skills which are considered essential to independent adult life and which are to be achieved by the end of grade 12 in the fields of aesthetic expression, citizenship, communication, personal development, problem solving and technological competence.

Wherever possible, the children with special needs follow the province's standard curriculum. Although methods and resource teachers adjust this for individual children in accordance with the children's various strengths and needs (OECD, 1995*a*, p. 207), the individual education programmes continue to operate within the general framework of the standard curriculum.

Evaluation

Almost all pupils and students in New Brunswick take the provincial examinations (New Brunswick Department of Education, 1995*d*). In the anglophone schools, for example, there are tests in mathematics, science, reading and writing at grades 3 and 6, in computer literacy at grade 7 or 8, in English language proficiency at grade 8, in mathematics, science and social studies at grade 9, in English and mathematics at grade 11, and in French as a second language at grade 12. In addition, at various age levels New Brunswick children participate in Canada-wide testing in literacy, mathematics and science and in international assessments, with 40 countries participating, in mathematics and science.

In the francophone schools, students in the 4th and 8th grades take tests in reading, writing, arithmetic and geometry. Students are presented with their own individual profiles of achievement. The profiles can help teachers plan appropriate levels of work in these subjects, and the aggregated results enable the Department of Education to monitor progress. School staff also conduct tests, within the framework of a programme of learning objectives, which lead to descriptions of achievement in the 5th grade and objective scores in grades 6, 7 and 8.

Throughout New Brunswick there are arrangements whereby those with disabilities can take the tests with the questions presented in modified form if necessary, for example in large print, in Braille, on sound recordings, or signed by an interpreter. Responses can be dictated to a scribe or produced through an electronic communication device, and the candidate may be allowed extended time. These arrangements are monitored at provincial level, and candidates requiring special testing conditions have to be registered as such prior to the examinations.

Some of the children on adapted programmes or on individual education programmes are exempted from the examinations, and the modifications to their credits are signified on their record forms (New Brunswick Department of Education, 1996*a*, p. 5). In 1995, fewer than 2% of pupils were exempted at elementary and middle school levels, more at high school level (New Brunswick Department of Education, 1995*b*, p. 2).

Since the province introduced legislation in 1986 to improve educational programmes for exceptional pupils and students, the education department has kept progress under regular review and as a result was able to identify key features of best practice in inclusive education. These features were seen to be relevant to all learners, not just to those with learning difficulties.

Features of best practice were found to include believing that all children can learn if they are given appropriate learning opportunities, planning individualised learning, developing support teams, promoting social skills and responsibilities among the children, assessing children's performance, planning for transition from one stage of education to the next, working in partnership with parents and other members of the community, implementing staff development plans, and being accountable (New Brunswick Department of Education, 1994*a*).

Further developments

One of the concerns expressed was to sustain the province's current level of inclusion without allowing an artificial inflation of individual education programmes to occur, and the intention was expressed to keep individual education programmes below the 5% level.

B. Arrangements at district level

Introduction

Visits were made to two of the 12 anglophone districts in New Brunswick, the first with its district office based in Woodstock and the second with its district office in Moncton, and to one of the province's six francophone districts, with its geographical area also including Moncton and its surroundings.

Prevalence

Both Woodstock and Moncton are in the southern half of New Brunswick. At the western fringe of the province, the Woodstock area is largely rural. By contrast, more than half of the residents of the geographical area covered by the other two districts live in the eastern township of Moncton itself. While socio-economic characteristics of the three districts may be broadly similar on the average, the geographical distribution of wealth in Woodstock appears to be more even than that in the two more urban districts. For example, whereas the catchment areas of some urban schools are relatively disadvantaged, others are relatively affluent. Visits were made to schools at both ends of the scale.

Education officers in the two anglophone districts thought that the prevalence of children with special educational needs, defined as those requiring a curriculum that is modified in some way, fell within the 10 to 13% range estimated to be the case at provincial level. In the francophone district, up to 16% were thought to have special educational needs.

The vehicle for the more informal level of curriculum modification is sometimes referred to as the individual resource programme (IRP) or the adapted programme (AP). In the francophone district, adapted programmes were considered to be needed by those students whose academic achievements are at or below the average level of students who are two years younger.

Formal individual education programmes were thought to be being implemented with 5% of the 5 000 students in the first anglophone district visited, with from 3% to 5% of the 14 500 students in the second, and with 0.7% of the 9 800 students in the francophone district.

Provision

In all three districts, following closures of special schools during the 1980s, public education is provided entirely through their systems of ordinary elementary, middle and high schools: a total of 14 schools in the first anglophone district visited, 33 in the second, and 19 in the francophone district. There are a few children being temporarily educated on an individual basis following suspension from school, a few high school drop-outs and a few enrolled by parental choice in home-school programmes. In the second anglophone district visited it was said that overall these groups would constitute less than 1% of the total student population.

The pupil/educator ratios (PERs) for the first and second anglophone districts visited, at 17.5 to 1 and 16.9 to 1 respectively in 1995, are both above that for the province as a whole (Hayes, 1996, p. 1). The PER for the francophone district visited is even higher, standing at 18.2 to 1.

Levels of within-school support staff for children with special needs in the two anglophone districts are broadly similar, with the emphasis slightly more on teachers' assistants in the first and slightly more on methods and resource teachers in the second. In terms of full-time equivalents the first anglophone district, with a total of 5 000 students, has 16.5 methods and resource teachers and 41 teachers' assistants, and the second, with 14 500 students, has 52 methods and resource teachers and 109 teachers' assistants.

Provision of methods and resource teachers in the francophone district is less extensive, and is allocated on the basis of a ratio of one to every 350 students. In addition, the district uses some of its budget to offer temporary tutoring contracts to trainee teachers completing their masters' degrees in education. They tutor children experiencing learning difficulties and have been found to be particularly useful at 12th grade level, where the students with learning difficulties are anxious to succeed in their final high school examinations. There are also people employed in the posts of *conseiller en orientation*, helping students choose their courses, and *conseiller en adaptation scolaire*, approving special programmes.

Policy

The fact that inclusive education is a priority issue in the first anglophone district visited can be seen from its "profile" booklet, in which the District Superintendent's introduction acknowledges the international leadership the district has maintained in this field and in which there are several sections devoted to topics of particular relevance to meeting the needs of students with disabilities: co-operative learning; multi-level instruction; enrichment; discipline; methods and resource teachers; teacher assistants; counsellors; student services teams; social workers; the speech and language pathologist; itinerant teachers for students with hearing or visual impairment. Some of these topics are also outlined in separate hand-out sheets.

Legislation

There is no relevant local legislation additional to that applying at national and provincial levels.

Guidance

As part of its introductory information pack for parents and professionals, the first anglophone district visited includes hand-out sheets providing guidance about student services teams, parental involvement when students have problems, enrichment, and multi-level instruction. The district also issues a substantial document stating its appraisal policy and providing guidelines on appraisal procedures, with separate sets of criteria for class teachers, methods and resource teachers, and guidance counsellors (New Brunswick Department of Education, 1995*c*).

Staff of the district's student support services team have produced a guidance manual and an associated video designed to help teachers make use of the collective approaches to problem-solving that are important features of the team's work (Porter *et al.*, 1994).

Guidance available to teachers in the francophone district visited includes documents concerning the roles and responsibilities of methods and resource teachers (Nouveau Brunswick Conseil Scolaire 1, 1992) and of teachers' assistants (Nouveau Brunswick Direction des Services aux Élèves, 1993). Also mentioned was information provided by a voluntary body, the *Association du Nouveau Brunswick pour le Trouble de l'Hyperactivité avec Déficit de l'Attention* (1993), concerning problems of children with attention deficit disorder.

Funding

For the purposes of the present study, the funding of special education has been worked out in some detail with respect to the first anglophone district visited. The funding allocated to schools across the province on a per capita basis for 1996-97 includes an element of USD 245.1 (CAD 300) per child which assumes that some of the children have special needs. In addition, the district receives some USD 326 797 (CAD 400 000) for various initiatives, and about half of this allocation is directly related to special educational needs. Relevant initiatives include those concerned with enrichment, tutoring, behaviour, kindergarten inclusion, learning difficulties, and summer enhancement.

The allocation of USD 245.1 (CAD 300) per child, yielding a total of USD 1 205 556 (CAD 475 601), includes USD 695 736 (CAD 851 581) for the district's 16.5 methods and resource teachers and USD 469 039 (CAD 574 104) for the 41 teachers' assistants, with the remaining USD 40 781 (CAD 49 916) being allowed for other aspects of special educational needs. The salary of a teacher's assistant is less than a third of that of a teacher. The costs of the district's full-time equivalent of nine guidance counsellors have not been included here, as it was said that most of the counselling needed by children with learning difficulties is undertaken by the methods and resource teachers and the teachers' assistants.

Costs of external support service staff concerned with special educational needs (details are given in the sub-section below, on support services) can be expected to be of the order of USD 408 497 (CAD 500 000). Information provided concerning prevalence of special needs suggests that there will be about 540 children with special needs in the district (10.8% of 5 000), about 250 of whom are on individual education programmes. Whereas the teachers' assistants are concerned largely with the 250 or so children on individual education programmes, the other support staff are concerned with the whole 540.

Table 2.1. **Extra cost of educating children with special needs in Woodstock**

	Cost per annum in thousands of USD (PPP)	Cost per annum in thousands of CAD
Methods and resource teachers	695 736	851 581
Teachers' assistants	469 039	574 104
Other aspects of SEN	40 781	49 916
Special initiatives	163 399	200 000
External support staff	408 497	500 000
Total	1 777 452	2 175 601

The "extra" cost of educating children with special needs in the district, over and above the cost of providing ordinary education for them, is shown in Table 2.1.

FOR the 540 or so children with special needs generally, this averages out to an extra cost of about USD 3 268 (CAD 4 000) per child. As it costs some USD 4 085 (CAD 5 000) per annum to educate the average child (Atlantic Provinces Education Foundation, 1996, p. 39; New Brunswick Department of Education, 1995*a*), and as this USD 4 085 (CAD 5 000) includes a USD 245.1 (CAD 300) allowance for special needs, this indicates that the overall annual cost per child with special needs is some USD 7 108 (CAD 8 700), as opposed to USD 3 840 (CAD 4 700) per child without special needs. In other words, the ratio of cost per "special" child to the cost per "ordinary" child is of the order of 1.9 to 1. Needless to say, this extra cost is not evenly distributed among the 11% or so of children with special needs. If the ratio is calculated only with respect to the 5% of children on individual education programmes it rises to 2.1 to 1.

These calculations must be regarded as being approximate. For example, not all the figures are taken from the same year, and they ignore factors such as capital expenditure, recurrent expenditure on equipment and on transport, the costs of teachers' attendance at in-service training sessions, any benefits that training in handling special needs may also have for children without special needs, and the extra attention that children with special needs may require of staff such as secretaries, class teachers and school principals. Nevertheless, as staffing accounts for most of recurrent expenditure on education, even if these other factors were costed in detail they would probably only have minor effects on the ratios arrived at here.

In order to obtain some assessment of the total cost of the children's education, including any outside-school help provided by or paid for by parents, a small-scale subsidiary enquiry was undertaken for the study by district staff during the autumn of 1996. Ten pairs of children were identified. Both members of each pair were in the same school grade and of similar socio-economic background and family circumstances. One member of each pair had a learning disability sufficiently severe to require an individual education programme and the other did not have any special educational needs. Parents were interviewed, using an interview schedule designed for the study in England by staff of the University of Kent at Canterbury's Personal Social Services Research Unit (see Annex 3).

Responses to interviews indicated that for all the children concerned the main form of extra-curricular educational help was with homework and was undertaken by the parents themselves. The children with disabilities received no more help in this way than did those without special needs. In fact, several received less, as children on individual education programmes were not necessarily set homework. It was clear, however, that those with special needs, particularly those with physical disabilities, required and received a good deal more parental support generally, and that some of this was quite costly. For example, parents experienced various problems in obtaining respite care, in paying for special equipment and in transporting their children to health establishments.

While the costs of special education in the second anglophone district visited have not been worked out in any detail for the purposes of the present study, the information to hand suggests that its allocations are not grossly different. For example, the district has a total of 14 500 students, its per capita allowance for special education is some USD 253.3 (CAD 310), and it receives an additional USD 408 497 (CAD 500 000) or so for special education projects, their range being much the same as that occurring in the first anglophone district visited. There are differences, however, in the nature and extent of in-service training provided in the different districts, and these are outlined below.

Training

The first anglophone district visited is particularly active in running in-service training programmes for school staff, spending 250% more than that allocated for this purpose by the Department of Education, with programmes being run both during and outside timetabled school time, the latter occurring to the extent that 80% of staff attend sessions in their own time (Hayes, 1996, p. 6). The district's student services team are key providers (OECD, 1995*a*, p. 158). They run monthly sessions, each lasting for a day and each attended jointly by the methods and resource teachers and the guidance counsellors. The sessions help them to act as agents of change within their own schools and train them in assessment, observation, mediation, problem-solving, and facilitation of meetings.

The district's student services team also provide in-service training for class teachers in topics such as literacy development, multi-level instruction, co-operative learning, multiple intelligences, and non-violent crisis intervention. Opportunities for in-service training are created by the provision of supply teachers and the allocation of "school enhancement days" to class teachers, thereby also enabling them to engage in activities such as consulting with other adults, planning assignments, and visiting other schools.

In-service training concerned with special education planned for 1996-97 in the second anglophone district visited consists of a four-hour training session in enrichment programming, to be attended by two teachers from each school, four two-hour post-school sessions for methods and resource teachers, and four two-hour post-school sessions for teachers' assistants. The methods and resource teachers and the teachers' assistants will be able, if they wish, to attend some of each others' sessions as well as their own.

In the francophone district the methods and resource teachers have from two to four days a year of in-service training. Since April 1996, the school year has consisted of 187 days for children and 195 days for teachers, the extra eight days being available for in-service training, some of which is in the field of special education. In addition, many teachers attend courses during their summer vacations. Some training courses are run by a teacher training institution, some by Department of Education staff, and some by district staff.

Support services

In the first anglophone district visited, the main support service external to the schools, providing key contacts for the methods and resource teachers and the guidance counsellors, is the district's student services team, based in the district education office. The team was seen to be organised democratically, to work closely and informally, both among themselves and with the district superintendent, and to collaborate well on tasks. Their excellent record of publication in the field of inclusive education considerably enhances their prestige both within and beyond their district. Their declared mission is to provide a service that enhances teaching for the benefit of all students, not just those with special needs.

The team includes the full-time equivalent (FTE) of 7.9 personnel concerned with special educational needs: the full-time Director of Student Services, two full-time student services consultants, a psychometrist (0.5 FTE), three school social workers (1.5 FTE), two full-time speech language pathologists, and two itinerant teachers for sensory impairment (0.9 FTE). The team also includes a co-operative education co-ordinator, concerned with work placements, and a teacher seconded to an environmental project.

External support services for special needs in the second anglophone district visited are less extensive, given its larger student population. In relation to the student population there are only some three quarters as many staff, and they are organised differently. One of the district's nine supervisors is responsible for special education and another looks after psychologists and guidance counsellors. This district has more itinerant teachers for sensory impairment (6 FTE) and more psychologists (5 FTE) than does the first anglophone district visited but proportionally fewer social workers (1 FTE), fewer speech language pathologists (4 FTE), and no student services consultants as such.

The external support services in the francophone district visited are more concerned with providing social and medical services to families than with educational advice to schools. They include speech language pathologists (2 FTE) and social workers (4 FTE) provided from the Department of Health and Community Services. They also include the district's intervention team, consisting of a nurse, an occupational therapist, a physiotherapist, a psychologist and a social worker.

Parental and community involvement

Inclusive education in the first anglophone district visited is strongly supported by parent groups, which had been influential in lobbying for the de-segregation developments which started during the 1980s (OECD, 1995*a*, p. 70). One of the most successful strategies for sustaining parental involvement is reported as being including them as partners in the problem-solving meetings attended by the methods and resource teachers, with these meetings also being attended on occasion by parents whose children do not have special needs (*op. cit.*, p. 163).

Outcomes of interviews indicate that all the schools in this district have home-school associations, offer parenting programmes and have parents actively involved in supporting class teaching, mainly working with children without disabilities. Some schools run literacy teaching programmes for parents, who then help their own and other children to learn to read. About half the schools have guidance advisory committees, with membership that includes representatives of parents, school staff and students, developing and monitoring the schools' guidance programmes.

In the second anglophone district visited, the local Association for Community Living was referred to as an influential parent body, supporting parents of children with learning disabilities and acting as their advocates. There are also local groups concerned with specific disabilities. In addition, there are voluntary groups with a wide community service remit, the Lions for example, who sometimes raise funds to provide equipment for children with disabilities. Parents provide support in schools for children generally, rather than for those with special needs: helping at lunchtimes, for example, in the library, and in craft lessons.

The situation in the francophone district is similar, and much of the support for the mostly urban families of children with disabilities in these two districts, which co-exist in largely the same geographical area, is through the same voluntary organisations. Guidance provided by the *Association du Nouveau Brunswick pour le Trouble de l'Hyperactivité avec Déficit de l'Attention* (1993) has already been mentioned. Members of community services in Moncton also co-operate with teachers in providing an extra-curricular programme, "SMILE", whereby children with disabilities are helped on a one-to-one basis to develop their sporting capabilities. The *Agence de Volontariat de la Ville de Moncton* runs weekend activities for children with special needs, thus offering respite for their parents.

Community attitudes to inclusion in the two more urban districts were described as being largely positive. Overall, the involvement of parents of children with disabilities seems to be moderate, with professional staff taking most of the initiative in arranging special education programmes, keeping parents informed and obtaining their signed agreement to individual resource plans and individual education plans.

Curriculum development

In the second anglophone district visited, there has been a particular emphasis on the development of school enrichment programmes, with schools entering the third year of a five year plan in Autumn 1996 and expected to have their programmes in place by this time, following periods of in-service training in the previous year.

An important feature of the curriculum in this district, one which is given prominence in the district's published guide for parents (Board of School Trustees, District 2, 1995), is the option to enter one of the French Immersion programmes. The option exists in over three quarters of the district's schools. It can be taken up in grade 1 through the early immersion programme, whereby the language of instruction for 90% of scheduled time is French, with the emphasis reducing in stages down to 33% by grades 9 to 12. Alternatively, it can be taken up in grade 6 through the intermediate immersion programme, whereby 70% of instruction is in French, again reducing to 33% for grades 9 to 12. Effects of these arrangements on the school milieu of students with special educational needs are commented on below, in the section on schools visited.

In the francophone district, the development of curriculum materials tends to be through the translation into French of texts first published in English. Most of the new materials published in French are in the fields of literacy or history.

Evaluation

In the first anglophone district visited, each school has an external evaluation of its operation generally, once every three or four years, and the district student services team contribute to this. Evaluation at district and at school levels of developments in inclusive education over the past decade has been extensive, and various strategies are reported to have been successful.

Strategies reported to be successful in developing and sustaining inclusive education include strong leadership at district level, establishment of a common vision, location of staff within the district education office, a problem-solving style of working, team-building, partnership with members of the community, the use of funds from a variety of sources, the creation of a positive climate in schools, the provision of training, the development of the role of the methods and resource teachers, constant monitoring, and regular evaluation (Evans, 1998; Board of School Trustees, District 12, 1996). Accountability is also considered to be a factor, with professional staff in schools having their performance formally appraised by their principals every four years (Hayes, 1996, p. 8).

The excellence of the district's school graduation results is attributed by the district superintendent to be at least in part due to the district's inclusion policy and practice (*op. cit.*, pp. 1-3). This district ranked highest among the New Brunswick districts in five out of the six final grade English and mathematics examinations in 1994 and again in 1995. It has consistently high graduation rates, among the highest in Canada, with each year's rate over the past decade falling within the range from 96.5% and 98.2%.

The question as to whether these outcomes and the district's inclusive education practice are related is outside the range of the present study and could only be researched formally if children's family backgrounds and their achievements at the successive stages of school entry were known. Nevertheless, the hypothesis carries conviction and in any case the belief that these relationships exist must be a strong factor in sustaining the practice's credibility.

In achieving these successes, several obstacles had, and still have, to be countered. These include difficulties in co-ordinating meetings which have to involve many people, reluctance to relinquish traditional roles, the perception of pupils with special needs in terms of negative stereotypes, concern about confidentiality, and uncertainty among Support Services to Education staff as to whom they should be responsible (Evans, 1998).

In the second anglophone district visited, exemptions from the provincial tests were referred to as running generally at between 1% and 2% of the age group, this being of the same order as that applying across the province as a whole. The schools determine which students should be exempted and their recommendations are monitored both at district and at provincial levels. Students who are exempted through disability may take individual tests administered by the psychologists.

Further developments

In the second anglophone district visited, one of the main difficulties recognised at district level is the fact that the methods and resource teachers can be assigned to the role without their receiving any special training.

C. The schools visited

Basic information

As the strategy adopted was to use the time available to make short visits to several schools rather than more extended visits to a few, it was not possible to obtain a full overview of each school. To compensate for this, different aspects were focused on in different schools. Visits were undertaken to three schools in the first anglophone district visited, five schools and a technology centre in the second, and three schools and a university education department in the francophone district.

In each of the three districts, students right through the age range 4 to 18 were seen. Parents are expected to send their children to their neighbourhood schools. In the first anglophone district visited it appears that virtually all do, but in the second the district's brochure for parents, entitled "Choices", stresses the district's open boundary policy, whereby up to grade 8 level the parents can send their children to any of the public schools catering for the children's age levels, if there is space available and if the parents make their own arrangements for transport.

Whereas catchment areas of the schools visited in the first anglophone district are largely rural and in socio-economic terms probably fairly typical of much of the province, all but one of the schools visited in the other two districts are in urban or suburban settings. In the second anglophone district they range from one in a relatively affluent suburb to one set in the poorest part of town, with more than a quarter of the students said to be living in housing units with rents subsidised by the municipality and to have no parent in employment. In this particular school, 157 of the 414 children on roll, aged from 4 to 14, were living with single parents. In the francophone district, similarly, 30% of the children attending one of the schools were said to come from socio-economically deprived homes.

Numbers on roll in the schools visited ranged from 415 to 764 in the first anglophone district and from 310 to 1 860 in the two other urban districts. Very few students were from ethnic minority groups, although the roll of one of the francophone schools visited included a number of children of African origin. In this same school there were some children whose first language was English but whose parents wished them to experience education on a totally French immersion basis.

In the schools visited in the first anglophone district, from 6% to 10% of the students on roll were considered to have special needs and, within this group, from 2% to 4% of the total on roll were on individual education programmes. In the other two districts, taken together, the number thought to have special needs ranged from 4% to 25% and the proportion of the total on individual education programmes ranged from 0.6% to 2%. The overall pupil/educator ratio (including principal, deputies and within-school support staff) was 19 to 1 in each of the schools visited in the first anglophone district and in the other two districts it ranged between the extremes of 15 to 1 and 21 to 1.

Quality of work

In the first anglophone district visited, almost all the work seen with students with special needs took place in the ordinary classroom, and it was often the case that those on individual education programmes were, with the help of a teacher's assistant, doing working in the same subject as the rest of the class. In an English class of 22 sixth grade students, for example, while the class teacher engaged the class generally in volunteering answers about a book they had read, prior to a task in which they were to write answers to similar questions, the teacher's assistant was taking a boy through a simpler book, listening to him read and then asking questions to test his comprehension.

In a class of 22 fourth grade children, the teacher explained aspects of arithmetical place values to a class and then, while most of them completed related mathematics exercises, she helped the teacher's assistant to operate a programme designed for a girl with severe physical and intellectual disabilities. The programme had been devised with the help of a speech therapist and was being used to help the girl, seated in a wheelchair, to use touch to communicate simple choices, such as whether or not to do some work with a computer. Because it could be quite tiring to work individually with this particular girl for extended periods of time, the school's five assistants, assigned to help the school's 12 children on individual education programmes, took turns in working with her.

Not all the work with students on individual education programmes relies on the presence of a teacher's assistant. In a social studies lesson with a grade 7 class, the teacher conducted whole class questioning designed to help students distinguish fact from opinion in statements about Canadian life, pausing periodically to help a less able student who was attempting to complete a jigsaw puzzle consisting of a cut up map of Canada.

It is not always the case that teachers' assistants work with individuals. In one case of older students, in order to keep the class to task, the teacher had assigned the teacher's assistant to a lesson which she was undertaking elsewhere with a group consisting of about a quarter of the class, while he conducted a smilar lesson with the remainder. In the second anglophone district, most of the extra help given to students with special needs in the schools visited was through extraction from the class for group or individual work, usually in a resources room dedicated to this purpose, managed by methods and resource teachers and/or teachers' assistants. There were some instances, though, in which special help was being provided on an inclusive basis.

In an elementary school, where 38 children at grade 2 level were usually shared by two teachers on a team-teaching basis, on this occasion the children were divided into two classes and some 20 of the children were working in small groups, largely self-sufficient but helped on occasion by the class teacher, who was going round the groups and checking on their progress. One group listened to a taped story on headphones, one did the same but also followed the story in a book, one drew pictures to go with the story, and one wrote about it. In the same class, a boy placed on an individual resource programme because of his hyperactivity had been set onto a reading and writing task and was having the full attention of a teacher's assistant. Although restless, he was co-operative and managed to keep to the assigned task most of the time.

In the high school visited, some 60 to 65 grade 9 students were working in the technology room, supervised by two teachers on a team teaching basis. Among the students working individually and in pairs on various projects were two on individual education programmes. One, paired up with a more able student, was being helped by a teacher's assistant to name the parts of a petrol engine being dismantled, and the other was being helped by a teacher's assistant to build a model bridge in accordance with a supplied diagram.

In the same school, a grade 11 class of 19 students included two with hearing impairment who, as with the rest of the class, were using calculators to complete multiplication and subtraction exercises related to employment; for example, to work out tax deductions from pay. When the teacher addressed the class as a whole, for example to go through an aspect some students had found difficult, his talk was converted to sign language by an interpreter assigned to the class from the Atlantic Provinces Special Education Authority.

A child with a disability being taught in an ordinary classroom is not of course necessarily fully included. In one grade 3 class of 25 children, while the majority were undertaking a spelling test, two who had been diagnosed as autistic sat by a side wall, partially screened from each other and from the rest of the class, each being helped individually by a teacher's assistant. In both cases the help was precise and well geared to the children's abilities: one child was identifying and classifying numbers from 1 to 100, while the other matched words with the same initial sound to pictures and was helped to say the initial sound. Their being taught separately in the ordinary classroom appeared to be the usual arrangement

Judging from conversation with other children in the class, they were aware of the presence of these two but did not know very much about them. They did not appear to be an undue distraction to the class generally, however, and their being partially integrated locationally in this way seemed to be far better, both for children and for teachers, than their being taught in total isolation.

While working with an individual with special needs in the company of other children has many advantages, there can be times when it is neither desirable or feasible. In a corridor of the middle school visited, a teenage boy with a very limited ability to speak, clearly in a state of some tension, was jumping up and down and banging his hands against the wall. The teacher's assistant looking after him was standing by patiently, evidently prepared to intervene if the boy seemed likely to damage himself, property or another person. Presumably the situation could well have been the same had the boy been attending a special school.

In the francophone district, the kind of help provided in ordinary classes by teachers' assistants often included helping a student with learning difficulties to follow the class teacher's instructions and organise the work expected: selecting the appropriate book, finding the right page, carrying out the tasks in the right order, not allowing attention to wander.

A school with 310 students on roll in the kindergarten to grade 8 range was providing mainly inclusive education for a boy aged 13 with developmental difficulties that were severe to the extent that he was as yet unable to talk in recognisable words. When observed, however, he was being helped on a one-to-one basis by a methods and resource teacher, working on a puzzle through which he was able to create geometric figures. The value to him of having opportunities to relate socially to peers without disabilities was stressed by the methods and resource teacher. This was illustrated at the end of the school day, when one of the other students, a girl, spontaneously helped him to leave the school building.

Accommodation and resources

Accommodation and resources were not considered in any great detail. The impression gained overall was that provision, while not lavish, was generally sufficient. Where necessary, most of the buildings either had been or were being adapted for wheelchair access. In one school where there had been no such adaptation, the access problems of a girl in a wheelchair had been compensated for by adapting her curriculum so that she could remain downstairs. An elementary school visited had a changing room equipped to provide for children who were not yet continent.

The larger schools had one or two resources rooms, used as bases by the methods and resource teachers and the teachers' assistants, and on occasion used for individual tuition or work with small groups. Accommodation and resources were not, however, plentiful in all schools and in all areas of the curriculum. In one high school visited, science was being taught in an ordinary classroom and it was clear that the school lacked facilities for conducting experiments.

The classrooms visited were generally large enough to provide a reasonable working environment for a class teacher, 25 or so students and two or three additional adults; a teacher's assistant, a trainee teacher and a volunteer for example.

Class teachers appeared to be able to obtain the resources they needed for the individual education programmes they wished to implement. One instance was referred to in which a school, needing expensive sound amplification equipment to help a student with a hearing disability, had successfully resorted to fund-raising.

Staff development

School staff in the first anglophone district visited clearly valued the opportunities they had to develop teaching relevant to students with special needs, and pointed out that much of it was also relevant to teaching more generally.

In the elementary school visited, for example, over the past year, five of the teaching staff of 30 had attended a series of eight three-hour sessions concerned with strategies of literacy teaching, applicable in work with all children but particularly useful with those experiencing difficulties. In the same school, class teachers had attended four one-day sessions on multiple intelligences, two of them had attended a two-day course on crisis intervention, and each of the five teacher's assistants had attended two one-day sessions concerned with language pathology and physiotherapy. The two methods and resource teachers and the guidance counsellor had all attended the regular monthly one-day sessions run for them by the district's student services staff.

In one of the high schools visited, the main current emphasis of in-service training was on helping staff working with students in grades 9 and 10, following the school's previous year's shift from intake in grade 10 to intake in grade 9, with entrants pursuing a two-year foundation programme followed by a two-year graduation programme. Nine of the school's 40.2 teaching staff were involved in weekly post-school problem-solving meetings, each of up to two hours, over the school year. In addition, in the previous year three teachers had visited other schools, each for four days, to study self-directed learning. As in other schools, the methods and resource teachers and the guidance counsellors were going out of school once a month to attend their meetings with district student services staff.

The methods and resource teachers spoken with in the second anglophone district did not generally consider themselves to be trained specifically for special education work, although a number of them had been undertaking it for several years and had therefore been able to learn on the job. Some had attended or were attending relevant part-time university courses, some to the level of bachelor's or master's degree. Some attended summer schools.

The teachers' assistants in the high school visited had recently attended a course on crisis intervention. In one of the schools with an age range of 4 to 14 years, reference was made to some in-service training provided for staff by the visiting psychologist and to the school's use of parents of children with disabilities as workshop presenters.

Curriculum

In the first anglophone district visited almost all the active support programmes and individual education programmes seen were set within the framework of the curriculum being followed by the student body as a whole. The programmes were generally planned by the class teachers, helped as necessary in their planning by the methods and resource teachers and, in the case of most of the individual education programmes, implemented at least to some extent by the teachers' assistants.

Clearly the planning of the lessons had been time-consuming. One class teacher commented that for any one lesson it usually took as long to prepare for the implementation of one student's individual education programme as it took to prepare the lesson followed by the rest of the class.

In the second anglophone district visited, while students on individual education programmes usually operated within the framework of the curriculum followed by students generally, the fact that they were more often outside the classroom provided more opportunities for departure from this pattern. In one school visited, for example, two girls with severe learning difficulties from a grade 5 class were going round the school gathering waste materials for re-cycling. in another, a 15 year old reported to have an intelligence quotient of 55 spent half the timetable on individual withdrawal, with his tasks including helping to wash up after lunch and helping the janitor to sweep the school.

In the francophone district, students on individual education programmes in the high school visited followed a curriculum modified to provide increased emphasis on French, English and mathematics. In their first semester in the school, for example, they only followed a third of the normal curriculum, with extra lessons in basic subjects being taken instead of more academic subjects such as chemistry and physics.

Management

In the first anglophone district, the key support staff concerned with special educational needs and based within the schools visited are the methods and resource teachers. In each school they, the head or deputy and the guidance counsellors form the school's student services team, who meet on a weekly basis to discuss school-wide issues, with the emphasis on special educational needs. Other staff, teaching assistants for example, may attend to discuss particular issues.

In the elementary school visited, for example, staff spoke of the meetings as generally lasting for about an hour, of their being concerned with problem-solving generally, of about half of their content focusing on children with special educational needs, and of one of the district officers as sitting in to enhance liaison between school and office. Equivalent arrangements were in place at high school level. At both levels, the role of the methods and resource teacher appeared to be that of someone with particular problem-solving expertise, rather than that of either manager's assistant or class teacher's advocate.

In the second anglophone district arrangements are similar, though apparently more geared to pastoral care than to management generally. In the high school, meetings were referred to as occurring weekly, involving the vice principal, the three methods and resource teachers, the three guidance counsellors and the district psychologist. In one of the visited schools for children aged 4 to 14, the psychologist sometimes sits in on the monthly meetings of principal, methods and resource teacher and teaching assistants, which again were referred to as being concerned with children's special needs rather than with management generally.

Similar arrangements apply in the francophone district. In one of the schools visited, weekly case conferences include the principal, methods and resource teacher, class teacher, psychologist and social worker.

Organisation

In the first anglophone district, all the schools visited have their classes organised on a mixed ability basis, although there is some incidental differentiation according to ability in the options students choose to take in grades 11 and 12. In most cases the class teachers rely on multi-level teaching, as described by Collicott (1991), to provide lessons that are as appropriate to students with learning difficulties as they are to more able students. Almost all the work seen with students on individual education programmes was in the ordinary classes, most of it being undertaken with the help of a teaching assistant, often but not always in the same school subject as that being taken by the rest of the class.

The work of the within-school student services teams in the first anglophone district visited was outlined in the previous study (OECD, 1995*a*, p. 157). The current study's visits provided examples of their supporting teachers, mainly on a consultative basis, often by helping them in problem-solving, for example by developing instructional programmes.

Methods and resource teachers referred to spending most of their time in relation to children with special needs generally, rather than to those on individual education programmes, although they are also instrumental, in collaboration with the class teacher, in devising and monitoring individual education plans. Teaching assistants provide classroom and individual support, mainly for children on individual education programmes, under the direction of the classroom teachers.

It was clear that methods and resource teachers in the first anglophone district visited are respected for their expertise in special education and their abilities to facilitate problem-solving. When teachers are identified by their principals or by district support staff as being people who could usefully be trained to occupy this role, there appear to be no difficulties in persuading them to take it on, despite the fact that it does not carry any pay additional to that of class teacher.

Methods and resource teachers spoke of the role as carrying the advantages of enabling them to learn from good practice engaged in by other teachers, of helping them towards a better understanding of the work of the school, of providing them with more in-service training, of giving them a chance to mediate between school and district, and of improving their promotion prospects.

In the second anglophone district visited, the allocation of children to groups is influenced considerably by the district's emphasis on learning French as the second language. The value of learning French was said to be such that a school leaver not fluent in both languages would have difficulty in obtaining skilled non-manual work or a job in a service industry.

At grade 1 level, while in principle the classes are of mixed ability, in most of the schools the parents have the option of placing their children in French immersion classes, where for most of the timetable French is the language of instruction. As children move up the school, those not able to manage the work in the immersion classes are moved across to the core classes, in which the language of instruction is English.

Through these arrangements the core classes were said to become, in successive grades and by comparison with the immersion classes, larger and with progressively higher proportions of students with learning and behavioural difficulties. The latter may well be the case in New Brunswick's anglophone school districts generally; for example, in the 1995 assessment of the English language proficiency of students in grade 8, students in French immersion classes scored more highly than did those in the core classes (New Brunswick Department of Education, 1995*b*, p. 22). Core and immersion classes, however, are not entirely segregated. In the high school visited, for example, grade 9 students from both types of class join together for art, music, physical education and technology.

In accordance with the province's inclusive education policy, the high school visited had in the previous year shifted away from a system whereby a single age group was divided into four streams of different ability levels. As a result of this shift, grade 9 and 10 students not in the French immersion classes are now allocated to mixed ability classes, and students with special needs are withdrawn from these classes for up to a quarter of their scheduled time, mainly in groups of four or so, for special tuition in English and mathematics.

The methods and resource teachers spoken with in the second anglophone district visited did not generally see themselves as having consultancy roles in their schools, and most of their work consisted of teaching individuals or small groups in the resource rooms, helped as necessary by the teachers' assistants. They did not necessarily see their being assigned to special education as being a mark of esteem, although it was clear that some had volunteered for this work because they valued it and felt they had an aptitude for it.

In the francophone district visited, while there were examples of the fully inclusive education of children with learning difficulties to be seen, significant amounts of work with children on individual education programmes and on adapted programmes were being undertaken outside the ordinary classroom. Methods and resource teachers generally spent about a third of their time teaching children and two-thirds of it either assessing children's needs or advising teachers on developing special education programmes. In the high school visited, two of the methods and resource teachers regularly spent part of their time teaching classes while the teachers being relieved prepared adapted programmes, and the other methods and resource teacher was fully timetabled to run a special class of five students with severe disabilities.

In all three districts, guidance counsellors focus on children's social and developmental problems, working mainly with children who do not have significant learning difficulties, as those who do are already being helped by methods and resource teachers and by teachers' assistants, as well as by class teachers. At high school level, co-operative education co-ordinators, also members of the student services teams, assist in arranging job placements. Parents and other volunteers tend to be assigned to help ordinary children rather than those with special needs.

Assessment

In the high school visited in the second anglophone district, with its entry at grade 9, the entrants had in the previous year undertaken literacy tests while in the middle school. Results of these tests, coupled with reports from the students' middle school teachers, served to have some 60 students, approximately a fifth of the age group, flagged as perhaps being in need of special help. During the first half term of the school year the methods and resource teachers were assessing these students in more detail with a view to identifying their needs more precisely.

In all three districts, the methods and resource teachers were referred to as being active in systematic assessment of the progress of students on individual education programmes and on adapted programmes.

Liaison

Contacts between school staff and district student services staff in the first anglophone district visited have already been described under the heading of staff development.

In most of the schools visited in the second anglophone district, contacts with support staff external to the schools were said to be occasional. In one of the schools for children aged 4 to 14 years visited, however, a psychologist and a speech pathologist each visit for one morning a week. The head of this school reported other contacts with external support staff, with psychiatrists, for example, as being rare, limited to about one or two meetings a year. The middle school visited has a psychologist and a social worker each in attendance for half a day per week.

In the francophone district, there is extensive involvement of external support service staff. A primary school with 310 children on roll receives regular visits from a psychologist (for two days weekly, *i.e.* 0.4 FTE) a speech pathologist (0.1 FTE), a social worker (0.1 FTE) and a nurse (0.1 FTE), and periodic visits from a teacher specialising in visual and auditory impairment. The high school, with 1 860 students on roll, has the services of a psychologist on a full-time basis and a social worker, working with students in the mornings and their parents in the afternoons, for from one to three days a week.

In order to ensure that expensive technological equipment and associated expertise are available to all four high schools in the second anglophone district, since September 1994 opportunities have existed for the schools to send students on a part-time basis to a well equipped centre, situated in Moncton, offering 47 courses and capable of accommodating some 1 500 students a day. Within this setting there are facilities for up to 60 students with learning difficulties, with each student attending in a class of 20 for one or other of each day's three timetabled periods, usually for a semester. The fourth period of each day is reserved for evaluation, planning, and systems maintenance.

Selected students in grades 9 to 12 attend for extra help in English, mathematics or history, with science and life skills planned when resources become available. Provision is a full-time teacher and a teacher's assistant. The software used is that of the "Pathfinder" system, a development from the Canadian Youth Employment Strategy known as "YES Canada", which covers the whole curriculum. For example, there are facilities for students with literacy problems to be taken through from below grade 1 up to grade 6. Across the curriculum, diagnosis of initial performance level is built into the system, students can proceed at their own pace on a largely independent basis, and mastery learning is set at the 80% success rate. Outcomes are reported to be very high.

Conclusions

New Brunswick's inclusive education policy is being implemented successfully, to the extent that the special schools have closed and virtually all children with special educational needs, including those with severe disabilities in learning, emotional adjustment and/or sensori-motor development, are educated within the ordinary school system.

In accordance with province-wide legislation that has been in place for more than a decade, provision is well established and provides ample demonstration that it is entirely feasible to educate children with major disabilities, given appropriate extra support, in ordinary classes of the order of 22 to 25 students, and within overall pupil/educator ratios of 17 to 1.

Visits were undertaken to three of the province's 12 districts and in one of these districts, on the basis of information provided by the district officers concerned, funding issues were addressed. Findings indicate that, on the average, the costs of educating children with special educational needs, who are believed to constitute some 10% to 13% of the total school age population, are approximately twice those of educating children without special needs.

Within this special group, the average costs of educating the 5% or so of the general population requiring individual education programmes are only slightly higher than those of educating children with special needs more generally. Indications from the previous study (OECD, 1995*a*, pp. 77-78) are that the extra costs of educating children with special needs in segregated settings in other countries are significantly higher than those found here.

One reason for the relative economy of the New Brunswick arrangements is the fact that the rates of pay of the teachers' assistants, who work under the supervision of the class teachers and with the guidance of the methods and resource teachers to help children on individual education programmes, are less than a third of the rates of pay of the qualified teachers.

While virtually all children with special needs are being educated in ordinary schools in all three districts visited, in only one of them does inclusive education operate fully. In the other two, extraction from classes for small group or individual tuition, usually but not invariably as a part-time measure, is far more prevalent.

The district most successful in providing fully inclusive education of good quality has the undoubted advantage of a district student support services team which is wholeheartedly supported by its managers, which has a long history of innovation, evaluation and publication in this field, and which has a reputation stretching well beyond the province. Other factors which appear to contribute significantly to its sustained success include the following:

- Contribution by the district support services team to the education of children generally, not just to that of children with special needs.
- Provision by the district student support services team of continuing in-service training on a regular basis for the methods and resource teachers employed as

special education consultants in the schools, thus enabling them to develop and sustain the expertise and credibility required.

- Regular in-service training for class teachers and teachers' assistants in the teaching methods needed.
- Involvement by the school principals of the methods and resource teachers in regular discussion concerning issues of school management generally, not just in relation to special needs.
- Involvement of parents as active participants in the education process, not just as its clients.

3. Denmark

Introduction

This part of the publication is concerned with the focused visits to Denmark, undertaken during September and October 1995. In the context of OECD countries generally, judging from information gathered in the previous project (OECD, 1995*a*), in recent years Denmark has been educating a relatively small proportion of its children in special schools: smaller, for example, than Austria, Belgium, Finland, France, Germany, Ireland, the Netherlands, Sweden, Switzerland and the United Kingdom. Denmark, however, has made relatively extensive use of special classes in ordinary schools. Consequently, among those member countries of the OECD taking active steps to develop inclusive education, the overall percentage of children educated outside mainstream classes in Denmark has exceeded that of European countries such as Iceland, Norway, Spain and the United Kingdom.

The visits were undertaken by the study's director and the study's senior consultant, in accordance with the agreed framework. Information concerning relevant policies and practice at national level was compiled mainly from official documentation provided by senior staff of the Danish Ministry of Education, supplemented through the relevant sections of the most recent report of the European Commission (1995) on the educational and initial training systems in the European Union. There were two visits, the first lasting for two consecutive days and the second for five.

The purposes of the first visit were to identify aspects of inclusive education nationally and to gain some understanding of regional variations. The second was concerned with developments in a selected region and with the effectiveness of arrangements for inclusive education in selected schools within that region. Meetings with education officers and advisers took place at the Ministry of Education offices, at two county administration centres, at a municipal hall and at two educational-psychological advice offices. Work with children was seen and discussed at two special schools, seven *folkeskolen*, a nursery and a youth club.

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

A. The national pattern

Prevalence

Denmark has a total population of some five million. Compulsory school age runs from 7 to 16 years and in 1992-93 the *folkeskole* population (including some children in pre-school classes) was 525 720, with a further 67 302 children attending private schools. The Danish country report provided for the OECD (1995*a*) integration project referred to all children as having access to education from the age of 5 or 6 years of age and to 13% of children as receiving special education of one form or another, mainly in mainstream settings. Of the total school age population, 0.9% are in special classes and 0.65% are in special schools.

Provision

At the pre-school level, Hansen (1992) reported extensive provision across the country for children with disabilities. This involves the co-ordination of local health, education and social welfare agencies. It includes emphases on early identification, on co-operating with parents on a basis of equality, and on the provision of day care services where necessary.

At the level of compulsory education, the Ministry of Education's National Committee Concerning Extensive Special Education (1990) reported significant changes in provision, over the 1980s, for children requiring "extensive special education".

As Table 3.1 reveals, in 1981, 6 321 pupils were placed in the extensive special education category: 26% of them were integrated into ordinary classes, 24% attended special classes in ordinary schools and 50% attended special schools. In 1988 there were 6 068 children, 1.1% of the school population, receiving extensive special education: 22% of them were integrated into ordinary classes, 32% attended special classes in ordinary schools and 46% attended special schools. [Statistically, the significance of the rise from .24 to .32 in the proportion attending special classes is well beyond the 0.1% probability level ($Z = 9.92$).]

Table 3.1. **Percentage of children requiring extensive special education placed in ordinary classes, special classes and special schools, 1981 and 1988**

	% in 1981	% in 1988
In ordinary classes	26	22
In special classes	24	32
In special schools	50	46

Large variations occurred across the 14 counties. In 1988, the proportion of the school population receiving extensive special education ranged from 0.7% to 1.4%. Among children receiving extensive special education, the proportion attending special schools ranged from 28% to 72% and for children integrated into ordinary classes it ranged from 10% to 34%.

Counties also varied appreciably in the extent to which they provided extensive special education or relied on other counties to provide it for them. At one extreme, the number of places provided within a county was only 68% of the number of that county's children receiving extensive special education. In other words, in net terms the county "exported" almost a third of its children requiring extensive special education to provision in other counties. At the other extreme, in a county which served as a net "importer" of such children, the number receiving extensive special education places exceeded the number of the county's children so educated by 38%.

Special education provision continues beyond the level of compulsory schooling. For example, there are a number of *afterskolen*, providing residential education particularly for young people in the 15 to 17 year age range, with some of these establishments catering for students with special educational needs.

Policy

Following an expansion of special education in the 1960s the Danish parliament passed a resolution that the instruction of handicapped pupils should be extended to enable them to be educated in a normal school environment, and throughout the 1970s successively fewer children were placed in special schools (Jensen, 1994). Since 1980, the Ministry of Education has carried out its responsibilities for ordinary and special education on a unified basis.

The Danish government has continued to actively endorse the principles of normalisation, integration and decentralisation in implementing education policy (Pijl, 1994). These principles apply at pre-school level as well as during the stage of compulsory education (Hansen, 1992). Ministerial guidance (Ministry of Education and Research, 1990) refers to special education as only taking place where it has not been possible to remedy difficulties within the framework of normal education, and states that normal education must therefore be organised in such a way as to ensure that optimum development is possible for those with special needs.

A leading principle of the Danish education system as being that of freedom of choice, with the state providing educational opportunities for all and people being free to choose alternative kinds of education, whether it be for ideological, political, educational or religious reasons.

Legislation

Major legislation relevant to the education of children with special needs is embodied in Consolidation Act 311, which, following an extensive programme of educational development (Jensen *et al.*, 1992) and consultation across the country (Ministry of Education, 1995), came into effect on August 1st 1994 (Ministry of Education, 1994). While continuing to require the Minister of Education to lay down the aims of teaching and draw up curriculum guidelines, the 1994 Education Act gives to teachers and pupils the responsibility for negotiating the aims which pupils will try to achieve.

The act refers to each municipal council as having the responsibility to ensure that all the children of school age in that municipality are enrolled in the *folkeskolen* or receive instruction of an equivalent standard. It states that special education will be provided for children who need it.

In laying down regulations concerning special education the minister has the freedom to modify some of the act's provisions. Modifications may be to the range of subjects to be taught, the number of lessons to be taught and/or the arrangements for assessment of educational achievement. Special education is to be offered to children who have not yet started school and, if needed, for two years beyond the range of compulsory schooling (*i.e.* to the age of 18).

In most of Denmark's 277 municipalities, legislation under the 1994 Act with respect to special education for children needing "extensive consideration or support" and for those who have not yet started school remains at the level of the 14 counties. The municipalities of Copenhagen and Frederiksberg are exceptional in the sense that there this responsibility is devolved to the level of the municipality.

Guidance

In implementing the 1994 Education Act the government set up the *Folkeskole* Council, with the brief of advising the minister on all matters relating to the *folkeskolen* and with the opportunity to recommend the initiation of related development work and research projects.

Funding

As indicated by the Ministry of Education and Research (1990), under Section 19.1 of the State School Act 1989, the expense of special education has generally rested with the local municipal councils, and under Section 20.1 of the 1994 Education Act this has continued to be the case. Where extensive special education is required, however, under Section 19.2 of the 1989 Act and now under Section 20.2 of the 1994 Act, it has mostly been borne by the county councils.

The municipal councils of Copenhagen and Frederiksberg have for some years been exceptions to this arrangement in that they have also borne the cost of extensive special education. The minister, in a letter of 26th April 1990, encouraged a more general phased devolution of responsibilities for extensive special education from county councils to municipal councils. This is a current topic for consultation and debate across the country, and devolution is now beginning to occur more widely.

The costs of providing extensive special education in 1988 were found by the National Committee Concerning Extensive Special Education to vary appreciably from one county to another. The average cost per pupil per year was USD 17 259 (DKK 165 000), ranging from USD11 925 to 24 895 (114 000 to 238 000). These figures included the costs of school personnel, buildings and transport, but not the costs of external support services. Within each kind of provision, costs also varied considerably from one county to another. Table 3.2 summarises the costs per pupil per year across the Danish counties for different type of provision.

Table 3.2. **Costs per pupil per year across the Danish counties, for pupils receiving extensive special education, 1988**

In USD using purchasing power parities, and DKK

	Range in USD	Range in DKK	Median USD	Median in DKK
In residential special schools	18 410 to 29 916	176 000 to 286 000	25 941	248 000
In day special schools	12 238 to 300 021	117 000 to 287 000	16 736	160 000
In special classes	101 774 to 20 921	103 000 to 200 000	14 017	134 000
In integrated classes	101 774 to 20 921	103 000 to 200 000	14 017	134 000

Cost per pupil in special schools were the greatest, with costs per pupil in special classes and in integrated classes being the same overall. While there was an overall parity between costs per pupil per year in special classes and those in integrated classes, in some counties special class provision was the more expensive and in other counties the cost in integrated classes was the greater, the difference in one county being as much as USD 6 799 (DKK 65 000).

Training

Initial training for teachers in the Danish *folkeskolen* is outlined in articles by the Ministry of Education and Research (1992), Hviid (1994) and the European Commission (1995). It is delivered through full-time four year degree level courses run in

18 specialised colleges distributed throughout the country. Training includes 16 weeks of teaching practice, preparation for teaching at all age levels, some study of subjects across the curriculum, specialisation in two subjects and, for some 10% of the time, study of the theory of education and of psychology. Preparation takes account of the fact that teachers in Denmark often follow the same children up through the system, in some cases right from year 1 to year 10.

Following initial qualification, the nature and extent of in-service training to be undertaken by teachers have been matters for their local employers to decide on, but under the 1994 Education Act teachers will be obliged to engage in in-service training in certain topics.

Special education, according to the statement and guidelines of the Ministry of Education and Research (1990), is carried out by teachers who "by special education, practical experience or in other ways have acquired the necessary qualifications". The statement goes on to say that "complementary special education" may also be given by a subject teacher or the class teacher.

Support services

The National Committee Concerning Extensive Special Education (1990) estimated the total number of people employed across the country, at county level, in 1988, in advisory work concerned with extensive special education, to be a full-time equivalent of 90. The figure included 32.5 psychologists, 53.5 special education advisers and four therapists, with more than half of the advisers specialising in visual or hearing impairment.

In addition, personnel employed at local level in connection with extensive special education included a further 23 psychologists, 164 educational helpers and 47 people engaged in physiotherapy or occupational therapy. The educational helpers were likely to engage in teaching as well as advisory duties. The full-time equivalent of a further 600 or so teachers was employed locally in within-class support teaching, in connection with those children receiving extensive special education within ordinary classes, and averaged 12 lessons of support per week (approximately half the timetable) for each child.

The total number of staff at the disposal of local councils for assessment, counselling and advice work in relation to children with special educational needs generally was reported to include over 800 psychologists and over 400 educational advisers, but the full-time equivalent appeared to be between half and three-quarters of this number. Generally these staff were based in some 125 educational-psychological advice offices, spread across the country, with their services being shared out across up to six municipalities in some instances.

If a child or the child's teacher, school doctor or parent considers that the child may be in need of special education that cannot be dealt with within the framework of normal teaching, referral is made to the local educational-psychological advice office. (Ministry of Education and Research, 1990.) In consultation with the child, the parents, and with members of other professionals if necessary, staff of the advice office send a written report, including their educational-psychological assessment results and their recommendations, to the head of the school.

The decision as to whether to propose special educational provision lies with the school head, who puts the proposal to the local council, which may make special education arrangements or may recommend to the county council that extensive special education be implemented.

Parental and community involvement

The Danish country report provided for the previous project (OECD, 1995*a*) stated that in the *folkeskole* system special educational help can only be provided with the agreement of the parents, and that parents are entitled to annual re-evaluation of any special education provided. Most of the overall decisions concerning any *folkeskole* are made by the school board, and parents have the majority membership on the board. Under the 1994 Education Act, this continues to be the case.

If a child is thought by teachers and/or doctors to require assessment with a view to special education, the parents must be consulted (Ministry of Education and Research, 1990.) If the parents oppose an educational-psychological assessment, a recommendation for assessment can only be given "if the school head considers it absolutely necessary".

Assessment involves consultation with the child and the parents; following assessment, parents must be informed of the content of the report. If they disagree with the recommendations, the advice office staff must account for this to the school head and state whether any special education recommended "is considered to be absolutely necessary". The head proposes the provision needed.

If the county council is involved, it "must, when taking the decision of a specific arrangement of the education, put considerable emphasis on the wishes of the parents. The wishes of the parents and the pupil, as to the place of schooling, must as far as possible be followed". If parents disagree with a decision to implement extensive special education they have a right, within four weeks of being notified of the decision, to lodge a formal complaint with the ministry.

Curriculum development

In the *folkeskolen*, there has been a long-standing tradition of mixed ability teaching at most age levels. Until the passing of the 1994 Education Act, however, in the final two years of compulsory education (years 8 and 9) and in the optional year following, for some subjects classes have been divided into those following basic courses and those following advanced courses, leading to the Leaving Examination and the Advanced Leaving examination respectively. The subjects involved have been mathematics and modern foreign languages in years 9 to 11 and science in years 10 and 11. With the implementation of the 1994 Act, the classes will be kept together and the two levels of course will be taught through within-class differentiation.

Government guidelines (Ministry of Education and Research, 1990) refer to various types of curriculum modification which can be of benefit to children with special needs. These include extra Danish, extra music, more practical work, exemption from testing in year 10, and temporary extra classroom support.

Evaluation

The main national indicator of pupils' performance is the Leaving Examination, which is drawn up and marked by the Ministry of Education, and which can be taken in 11 subjects. Successful performance leads to the award of the Leaving Certificate, which is obtained by 95% of 16 year olds. The Advanced Leaving Examination can be taken in five subjects, at the end of year 10, by those pupils who have followed the advanced course.

Some 50% of pupils continue into year 10, almost a third of school leavers go on to the Gymnasium or the Higher Preparation Course, most of the rest go on to vocational education and training, and only about 8% leave education altogether after year 9 or 10.

Jensen *et al.* (1992) discussed a number of development projects which demonstrated advantages of securing parental involvement in the work of schools and of helping teachers respond to children's social as well as their educational needs. In doing so they reported evidence to the effect that an increase in the social and caring aspects of the work of class teachers may in the long run lead to a reduction in the need for special education.

There appeared to be several conditions for these improvements. These included improved co-operation between class teachers and specialists in special education at the planning stage, both kinds of teacher seeing themselves as having a common responsibility, and both having clear definitions of their respective roles. Special classes were seen as having some advantages but also as running the risk of categorising pupils, losing sight of their social needs, and making them feel isolated or insufficient. Many of these disadvantages, it was thought, could be overcome, partly through careful co-ordination of ordinary and special class teaching, and partly through using special education on a short-term basis.

Jensen (1994) identified various factors promoting the development of inclusive education in Denmark. These include: a tradition of democratic thinking at all levels of society; central guidelines that emphasise integration; the education of all children being governed by a single law; the child's right to adapted teaching regardless of disability; decentralisation of decisions concerning children's education; parents' right to be consulted; choice of school not binding for the child's whole school career; a close relationship between teacher and pupil; maximum contact between family and school; a broad concept of teaching, involving both an educational and a social dimension; no emphasis on summarising results in academic subjects into a single mark.

The following factors were considered necessary to inclusive education: provision of the necessary resources; a flexible school system; continuing support through teaching and through pedagogical expertise; exchange of knowledge and experience between special education and ordinary teaching; psychological, social and medical support for teachers and parents, co-ordinated at local level. Looking to the future, it was thought that segregated education would continue to offer the best choice for the children with the greatest special needs, notably for those with deafness, autism or severe learning difficulty.

B. Local arrangements

Prevalence

The county within which the selected schools are situated has a total population of some 220 000, with some 300 children, just over 1% of the population of statutory school age, assessed under Section 20.2 of the 1994 Education Act as requiring extensive special education. In 1988 (National Committee Concerning Extensive Special Education, 1990) it stood at 1.15%, close to the national average of 1.09%.

Provision

While the proportion of the county's children considered in 1988 to require extensive special education reflected the position nationally, almost a third of them were being educated outside the county, and this use of placements outside the county for children requiring extensive special education was proportionally much higher than that in the country as a whole. Within the context of Denmark as a whole, the country's overall emphasis was decidedly on education in ordinary classes, with 31% of the total (*i.e.* including both those provided for within-county and those placed out-county) provided for in this way. For those educated within-county, the proportion rose to 44%. Table 3.3, which aggregates the county's within county and out-county placements, compares the county's allocation of provision with that in Denmark generally.

The county runs just one special school for children with severe learning difficulties. Many of them also have significant physical disabilities, and a number of non-ambulant children were seen during the visit there. The school was built in

Table 3.3 **Children requiring extensive special education: provision for the county's children, compared with that for Denmark as a whole, 1988**

Extensive special education	In ordinary classes	In special classes	In special schools
% of the county's children placed	31	36	33
% of Denmark's children placed	22	32	46

1992 and constitutes an amalgamation of two other special schools, one of which had very few children on roll. It is twinned with a *folkeskole*, the two schools having adjacent premises and sharing some facilities. For example, the special school makes use of the folkeskole's library, canteen and sports hall, and the folkeskole uses some of the special school's facilities for music and for swimming.

This special school has 52 children on roll, their age range being the same as that found in *folkeskolen* generally. The pupil/teacher ratio is 1.9 to 1, with 28 teaching staff, including head, deputy, and two teachers working in the kindergarten section. Support staff include four physiotherapists and a half-time speech therapist. The school is spacious and well equipped, with particularly good facilities for children with physical disabilities.

Some of the county's children requiring extensive special education are educated in residential special schools situated outside the county. These are mainly schools specialising in work with children who have hearing impairment, visual impairment, physical disability or dyslexia. Some 20 children attend a small special school, run by the county's largest municipality, for children with emotional and behavioural difficulties.

The majority of the county's children receiving extensive special education attend the *folkeskolen*. Seven were visited, and the findings of these visits are reported in the next section.

Policy

For many years the county has been very active in implementing the national government's integration policy. The former county special education adviser, strongly supported by the county's special education officer, was reported to have been a key figure in this implementation. Attitudes towards inclusive education in the county's municipalities were said to vary to some extent, being positive generally but perhaps not quite as positive on the average as those of officials at county level. On several occasions during the visits people interviewed expressed the view that county policy had drawn back slightly from the proactive stance adopted during the 1970s and 1980s. Several reasons were given for this:

- The demands that inclusive education has been found to place on teachers' time, skills and attitudes.
- A preference among parents of children with disabilities for the expertise they think special schooling can offer.
- Attempts by education authorities to reduce costs.
- A shifting of government attention towards other issues, such as unemployment, with the result that inclusive education has moved downwards to some extent on the political agenda.

Legislation

In 1992 the county sought to devolve responsibility for extensive special education to its municipalities, and all but one accepted this.

Funding

Costs of providing extensive special education in 1988 were slightly above those pertaining nationally: an average of USD 18 515 (DKK 177 000) per pupil per annum for the county, as against USD 17 259 (DKK 165 000) for the country as a whole (National Committee Concerning Extensive Special Education, 1990). Inclusive education was by far the least costly form of special education available as Table 3.4 shows.

Table 3.4 **Comparison of costs per pupil per annum, of providing various forms of extensive special education, 1988**

In USD using purchasing power parities, and DKK

	USD	DKK
County and regional special schools	30 021	287
Special schools run by local councils	26 674	255
Special classes in county schools	18 096	173
Normal classes or special classes where pupils are integrated	14 017	134

Training

The county's two support service teachers concerned with pre-school children with special educational needs run discussion groups for parents, as part of a county-wide project which also involves a psychologist and a medical officer.

The county's special school for children with learning difficulties manages its own staff development. This year this aspect of the school's work has been accorded a particularly high priority, with some 50 hours per teacher being allocated for this purpose. Many of the municipalities' teachers concerned with children with special educational needs either have followed or are following in-service training courses in special education. Typically these courses are run by higher education establishments, involve release from school for one day a week over two years, and lead to a diploma qualification. Denmark has knowledge centres which disseminate information on special education and contribute to training.

Support services

At county level there is only one adviser for special education, supported by two teachers who advise on pre-school provision. Typically, they visit parents monthly, write out advice for them on methods of helping their children, and record progress. Given parental agreement, they distribute copies of each progress report to the local educational psychologist, the social worker and the hospital doctor. At school level, most of the special education support services external to schools are run from the educational-psychological advice offices, which are either managed by individual municipalities or shared between two or more.

Parental and community involvement

Within the national context, the county has a very low level of parental complaint against the recommendations of professionals arising from assessment under Section 20.2 (formerly Section 19.2) of the 1994 Education Act; for example, only two appeals over the past year.

C. The folkeskolen visited

Basic information

All the seven *folkeskolen* visited are situated either in villages or in small towns with surrounding rural areas. For each school, all the children living locally have the right to attend, although in a small proportion of cases the parents will have agreed to their children attending one or other of the special schools referred to in the previous section, and in some instances they have agreed to their children's attendance at special classes in catchment areas other than their own. The catchment areas of five of the schools have few economically disadvantaged families, and few families where the parents' first language is not Danish. The proportion of disadvantaged children is higher in the first and the seventh of the *folkeskolen* visited than in the others.

The first of the *folkeskolen* visited is situated in the county's largest municipality. This and one other of the municipality's 13 *folkskolen* are designated as specialising in providing for children with special educational needs and for children whose first language is not Danish. It is adjacent to, twinned with and sharing some facilities with the special school for children with severe learning difficulties described in the previous section. The seventh of the *folkeskolen* visited has a high proportion of children of immigrant parents, about a third of the total number on roll. Most of these families are from Turkey; some are from central or south eastern Asia.

The proportion of children with disabilities varies to some extent from one school to another. It is probably the greatest in the first of the *folkeskolen* visited. At this school, children with special needs were said to constitute some 20% of those on roll, with more than a quarter of these children requiring extensive special education. The second of the *folkeskolen* visited was more typical, with 631 children on roll altogether, and 105 of them receiving some form of extra help because of their special educational needs, but only two of these children were formally assessed as requiring extensive special education.

All of the *folkeskolen* visited have kindergarten classes and all but one provide for children through the full age range of statutory schooling, from age 7/8+ (year 1) to age 15/16+ (year 9). The exception is the sixth visited, situated in a small village, providing for children up to and including year 5, with the older children attending another of the municipality's 11 *folkeskolen*, which is not too distant.

Pupil/teacher ratios in the schools, with school heads and their deputies included in the calculations, and with part-time teachers allowed for in terms of their full-time equivalents, are mostly of the order of 10 to 1, with the two schools providing for children of immigrant families being rather more advantageously staffed than the rest as shown in Table 3.5. These ratios slightly underestimate the extent of adult help available in classrooms, as the kindergarten classes have not

Table 3.5. **Number of pupils and teachers in the seven *folkeskolen* visited**

School	Pupils	Teachers	Pupil/teacher ratio
First	350	55	6.4 to 1
Second	631	64.3	9.8 to 1
Third	480	42.7	11.2 to 1
Fourth	550	50	11.0 to 1
Fifth	440	44	10.0 to 1
Sixth	70	8	8.75 to 1
Seventh	430	52	8.3 to 1

only teachers but also non-teacher assistants ("pedagogues"), and the latter have not been included in the calculations.

External special education support services available to the schools are mainly those provided by staff of the educational-psychological advice offices. In the case of the second school visited, the municipality's advice office is based in the school, with a full-time equivalent of 5.1 educational psychologists servicing the municipality's four *folkeskolen*. The third school visited has one educational psychologist assigned almost full-time to the school, some 10 hours weekly from a clinical psychologist and some three hours weekly from a social worker. The sixth school visited shares with two other schools an educational psychologist, a clinical psychologist, a special education consultant, a speech therapist, 0.5 of a physiotherapist and one hour a week of a social worker's time. This municipality's 11 schools share the services of a full-time school doctor.

Staffing allowances for special education in each of the *folkeskolen* are made, mainly at municipal level, broadly in accordance with the estimated numbers of children with special educational needs and more precisely in accordance with the actual numbers assessed under Section 20.2 of the Education Act. It is up to the managers of the schools themselves, however, to deploy their staff allocations in accordance with their own perceived priorities.

Judging from the schools visited, they appear to do this in fairly similar ways. For example, in the first school visited, with its relatively high proportion of children assessed as requiring extensive special education, the teachers allocated for special education of all kinds came to a full-time equivalent of 27. Insofar as it can be calculated realistically, this comes out at a pupil/teacher ratio of 2.6 to 1 for special education work and a ratio of 11.2 to 1 for work with children without special needs. In the second school, with 17% thought to have special needs but very few requiring extensive special education, the respective ratios come out at 6.6 to 1 and 10.9 to 1.

These ratios for special education work include allowance for the within-school support services provided by the schools' special education consultants, who carry out assessments and offer advice as well as undertaking some teaching, and for those provided by the speech therapists, who in Denmark are qualified teachers who have undertaken specialist training in speech therapy. The 16 special education teachers at the second school visited, for example, include one full-time special educational consultant and 2.5 teachers with speech therapy qualifications. Staffing of the third school visited includes a half-time educational consultant who works mostly with children with special needs but who also teaches an ordinary class for part of the time.

Among the teachers involved in special education, the proportion having specialist qualifications is not known. Most of those interviewed, however, particularly those specialising in special education, either had completed or were in the process of undertaking higher education level courses in special education.

For children with special needs, whether they are in ordinary classes, special classes or special schools, the length of the school day appears usually to be the same as that for other children of the same age, although in one special class it was seen to be about half an hour shorter. Length of school day increases as children get older, generally ranging from 20 three-quarter hour lessons a week for younger children to 30 for the older ones.

Generally, children start school at 8 a.m. and many have finished by lunchtime, though the older ones are likely to continue until about 3.15 p.m. Up to the age of 12 they can, if they and their parents wish, stay on at the youth clubs, which are situated in or near to the school premises, until about 6 p.m. Staff of the youth clubs are employed by the social services departments and do not need to be trained as teachers. One member of staff interviewed, working at the club based in the second of the schools visited, had trained as a social worker (social pedagogue) and had special qualifications for working with children with SEN.

Teachers, irrespective of whether or not they are working with children with special needs or whether they are working with younger or older children, tend to teach for about 25 lessons weekly, with the expectation that they will spend further time on activities such as consultation, preparation and marking.

Funding

The extra funding allocated for the six children assessed as requiring extensive special education in the third of the schools visited is to pay for 63 lessons; an allowance of between two and three teachers. Interestingly, the person who carries the responsibility for making this municipality's allocations, across its four *folkeskolen*, is the municipality's senior educational psychologist, who of course also has the task of monitoring assessments under Section 20.2 of the Education Act.

The total sum to be allocated for Section 20.2 teaching was fixed by the county, on the basis of municipalities' past records, when it delegated this responsibility in 1992, with the idea that it might be reviewed every so many years. So far it appears to be a successful method of keeping Section 20.2 spending under control.

In the first school visited, purchase of material resources such as books and equipment for the children in a year group is agreed through discussion among the team of ordinary and special class teachers working with that year group, on the basis that the funding required by a child in a special class is double that required by a child in an ordinary class.

The fourth of the schools visited has a special class for children with emotional and behavioural difficulties, serving both the *folkeskolen* in a sparsely populated municipality. Correspondingly, the other *folkeskole* has a class for children with moderate to severe learning difficulties, also serving the municipality as a whole. The five children in this special class for children with emotional and behavioural difficulties, their ages ranging from 7 to 12 years, are taught by a full-time teacher, two full-time pedagogues and a second teacher for eight lessons a week. Children may stay in this class for up to two years and 70% of children placed there have eventually returned to their ordinary classes.

Costs were estimated to be USD 23 188 (DKK 200 000) per child per annum, contrasting with an estimated USD 4 638 (DKK 40 000) per annum for an ordinary child in an ordinary class. Despite this extensive provision, the children are dealt with under Section 20.1 of the Education Act, not under Section 20.2. Within the county, this is the one municipality that has elected not to have responsibilities for funding for provision under Section 20.2 delegated to it.

For funding purposes, Sections 20.1 and 20.2 are not necessarily mutually exclusive categories. For example, in the fifth school visited a 15 year old girl who suffered a head injury in an accident five years ago has individual withdrawal help in arithmetic for four lessons a week, paid for by the municipality under Section 20.1, and in-class support in various subjects for 12 lessons per week, paid for by the county under Section 20.2. In fact, although the withdrawal work is nominally for arithmetic, part of this time is necessarily spent on training in social skills. The teachers found that the girl was experiencing difficulty in warding off unwanted amorous advances of boys and needed help in developing appropriate strategies.

Quality of work

While the majority of children with special needs being educated in ordinary classes are those referred to under Section 20.1 of the 1994 Education Act, some of them have been assessed under Section 20.2. For example, in the third school visited a blind girl was seen to be receiving extensive special education on a full-time basis in a year 3 class of 18 children. She had been with the same classmates since her entry to the school's kindergarten and with the same class teacher from year 1.

When the class moved to the school library one of the children spontaneously and unobtrusively took her by the hand and on return, similarly, another child helped her. In the library she read a book in Braille and the teacher helped her to borrow a sighted version of the same book so that her mother could read it to her. The girl said she is able to get around the school unaided, if necessary, using her cane, and that at the end of the day her mother meets her when she gets off the school bus. The conditions for this girl's extensive special education include a second teacher in the classroom for 15 lessons a week, a computer with a peripheral device for Braille display, a printer, Braille texts, and minor adaptations to classroom furniture. In addition, this student was able to spend a few weeks each year in a special facility for blind students in Denmark which gave her this opportunity to be with other students like herself.

In a language and literacy lesson seen, the lead teacher used the blackboard to give the class instruction prior to their being set on to individual writing. The support teacher typed the blackboard information into the computer keyboard, and the computer's peripheral device translated it into the rows of raised metal pins constituting its Braille strip, which the girl deciphered by hand while listening to what the lead teacher was saying. Later on the teachers exchanged roles for a mathematics lesson, with the other teacher, a mathematics specialist, taking the lead. The girl was well engaged, volunteering answers to questions. In the same class there are three boys who are taken out of the class for six lessons a week for extra help with their reading.

In the sixth school visited, the year 1 class of 10 children includes a girl who is of normal ability but has epilepsy. She is provided with extra in-class support for 14 lessons a week. A lesson was seen in which the class teacher had asked the children to choose words from picture-word cards and make them out of dough, ready to be baked and then eaten. The picture-word cards constituted the sight vocabulary being taught to the whole class during the current part of the term. The vocabulary consisted of names of children in the class plus short and mostly phonically regular common words. The school's consultant in special education was going round the class, helping out any children who appeared to need support.

In this context the girl with epilepsy appeared to manage quite well without any special help. Prior to her school entry the class teacher, who also does some work in a hospital school and has in the past taken a special class, had attended a one-day course in epilepsy.

The special class work seen was broadly the same as might have been expected with the children concerned had they been in special schools. In one such class in the second school visited, two teachers were working with four children aged 10 to 12, all with severe learning difficulties. The session began with an exercise in which one teacher held up pictures, some of which were of the children themselves, and asked the children to say the corresponding words. The group then played a game in which children had different clusters of pictures in front of them. Their tasks were to listen to tape recorded sounds and, if one had a picture corresponding to the sound, to place a counter on it.

For part of this time one of the children was taken to the speech therapist's room, well equipped for individual work, and taken energetically through a series of exercises including blowing a ping pong ball and imitating particular consonant sounds. Later that morning the support teacher went elsewhere, a specialist in domestic science joined the class teacher and the group cooked a meal. During part of this time, one of the children worked on a computer, completing simple mechanical addition exercises.

Accommodation

Accommodation for teaching was seen generally to be spacious, with plenty of room for ordinary classes of 15 to 20 and for the very small special classes of three or four. Rooms for special classes are set within the main body of the school. Ramps are in evidence where ground levels vary, and the one two-storey school visited is serviced by lifts as well as by stairs. The first school visited was designed specifically to accommodate special classes; at each of six age levels the two ordinary classes and the special class are adjacent, the three classes thus forming a unit conducive to periodic integration.

Resources

While use of resources in the lessons seen was not generally extensive, there do not appear to be any undue constraints imposed by shortage of funding, and it looks as though the teachers have reasonable access to the equipment and teaching materials they feel they need.

Some examples of very good tailoring of resources to meet individual special needs were seen. For example, the blind girl in the third school visited has a computer with a keyboard modified to enable her to wordprocess with her right hand only, so that she can use her left hand to feel the Braille version of the text she produces. A built-in fax modem enables her to get information on-line from a residential special school situated over 100 kilometres away and serving as the country's main educational resource centre for children with visual impairment. Her teacher obtains individualised teaching materials from the same source, but has to order them some six months in advance.

Staff development

A good example of the tailoring of staff development activities to meet individual needs was described by the class teacher of the blind child in the third school visited. In 1992, the teacher had expressed an interest in working with children with disabilities. Shortly before the child entered the kindergarten of the school, this teacher went with the teacher of the kindergarten class on a one week course at the country's special school and resource centre for the visually impaired, and has since attended a further four such courses. During the 1992-93 school year she helped out in the kindergarten class for ten lessons a week, and is currently in her third year as the blind girl's class teacher.

While most of the teachers interviewed spoke of engaging in in-service training related to their work with children with special needs, it had not always been easy for them to gain access to this. One, in the fourth school visited, having been teaching at the school for 11 years, said that she had been trying for several years to get a day's release weekly from the school to attend her current part-time university diploma course in special education.

Curriculum

The curriculum for children with special needs, including those requiring extensive special education, appears to be broadly within national guidelines, with particular emphasis on language and number work, though the balance of the curriculum is left largely to the class teachers and curriculum content does not appear to be recorded in any great detail. In the curriculum of the special class for children with emotional and behavioural difficulties in the fourth of the *folkeskolen* visited, outdoor pursuits were seen to receive particular emphasis. They are run mainly in the afternoons by the class's two pedagogues, with the timetable thus extending into what for most children is youth club time.

Management

Management of the *folkeskolen* involves extensive consultation concerning the funding required for the education of children with special needs and concerning the ways in which these needs are to be met through deployment of staffing and material resources. In the third school visited, for example, each year the head attends a meeting with the heads of the municipality's other three *folkeskolen*, with the municipality's senior educational psychologist and with an administrator from the town hall. This results in a sharing of resources, including those for special needs, to the four schools. The head, as do the other heads, consults the staff and draws up a staff allocation plan which is submitted to the governing body, the majority of whom are parents of children on roll.

In the allocation of teaching duties, the fact that teachers generally stay with their children as they move up the school can have particular advantages from the point of view of children with special needs. As found in the third school visited, for example, the expertise a teacher gains through working with a child with an unusual disability can be of long-term value.

Two other aspects of teaching allocation have particular relevance to meeting special needs. One is the fact that work with these children is shared out widely across the staff as a whole. Another is the fact that those contributing to work with these children often do so on the basis of their own subject expertise.

For example, the teacher allocated to help the blind girl is a mathematics specialist who takes the whole class while the class teacher, a specialist in Danish, helps the child. In the sixth school visited, the school's consultant for special education teaches German to whole classes for four lessons a week. Few teachers appear to work exclusively with children with disabilities. Consequently, the likelihood of professional isolation among those particularly involved in teaching these children must be reduced.

Regular arrangements for consultation among teachers allocated for work with children with special needs were described in the first school visited. For the children in any one age group there are likely to be two ordinary classes and one special class, with staffing consisting of two ordinary class teachers, one or two ordinary class helpers allocated for work with children with special needs, and two teachers for the special class. The team of five or six teachers meets for about an hour a week to co-ordinate their work and also has a monthly planning meeting to decide how to achieve longer term goals.

Organisation

All the *folkeskolen* visited make some use of in-class support. For example, in the first school visited each of the classes for the younger children has two teachers; one takes the class and the other provides support for those with special needs, sometimes in the class and sometimes through individual or small group withdrawal. As the children move up through the school, one support teacher may service two classes. In the second school visited, with a smaller proportion of children with special needs, the year 1 and year 2 classes each have a support teacher for half their scheduled time and the older children have more occasional in-class help.

In all the *folkeskolen* visited, there is a strong reliance on the use of very small special classes, particularly for work with children assessed as requiring extensive special education. For example, in the first school visited, with 350 children on roll, some 20 of them have been assessed under Section 20.2 of the Education Act, and they are allocated to six special classes, each with three or four children and two full-time teachers. Not all the children in special classes, however, have been assessed under Section 20.2. In the third school visited, for example, there is a special class in year 8 with six children but only one of these has been assessed under Section 20.2.

In the first school visited, integration was said to occur at the beginning of the day, when the ordinary class and special class children at a given age level are together as a social group, and at other times for subjects such as craft, music and physical education. Similarly, in the second school visited, the children in the special class seen spend some eight lessons a week with an ordinary class, for art, craft and physical education. Also, it was noticeable here that at playtime several children from an ordinary class came into the special class room, some to use the class computer and one to play with one of the special class children.

Assessment

For the majority of children in the *folkeskolen*, there appears to be little by way of formal assessment until they reach years 9 and 10, when they take the school leaving examinations. With respect to children with special needs, some teachers interviewed said they relied on their home-school notebooks to provide them with their records of children's progress.

There are, however, informal arrangements, as described in the fifth school visited for example, whereby once every two or three years class teachers may ask to have group tests of attainments in basic subjects administered by the school's special education consultant. In the sixth school visited, the service is provided, if class teachers request it, by the special class teachers. While the results can provide teachers with helpful information, they tend not to be passed on beyond the few school staff to whom they are of direct relevance, and the records tend to be thrown away after a year or two.

At kindergarten stage, in the municipality in which the sixth school visited is situated, there is a screening procedure whereby speech therapists and physiotherapists check out all the children's abilities to follow oral instructions and to draw. Where children appear to have difficulties in verbal comprehension or motor co-ordination, the kindergarten teachers meet the parents to discuss the children's education. Possible outcomes include a child's staying in kindergarten for an extra year, having speech therapy, and getting help with motor development.

As the class teachers tend to take the same children from one year to the next as they move up through the school, there is less need for assessment to inform other teachers than there would have been had the children been handed on from one teacher to another each year. However, this does not negate the need for teachers to assess children's progress as means of monitoring the effectiveness of their own teaching.

Overall, there appears to be little external monitoring of ordinary children's progress, apart from that done through the leaving examinations. For example, there is not a system of inspection of schools, and there are very few advisory staff at either municipal or county level. Those who do exist are primarily concerned with special education rather than with either particular school subjects or with children generally.

Pastoral care

Pastoral care is undertaken mostly by the class teachers, and it appears to be a strong feature of their work, reinforced by the fact that a teacher may stay with the same group of children for as long as a decade. If problems arise, the teacher discusses them with the parents, and it is only after they have done this and have tried to solve the problems themselves that they are allowed to involve any other professionals.

OECD 1999

Liaison

In the first of the schools visited, there are arrangements whereby children with special needs are helped with their homework by girls from the local gymnasium.

In the second of the schools visited, the speech therapist referred to keeping parents in touch with their children's progress by writing about it in the children's home-school books and by meeting them, as a group and individually, to talk about teaching methods. The special class teacher also made use of a home-school notebook to keep parents informed, in this instance on a daily basis, of their children's activities.

The educational psychologist who spends about half his time undertaking work in connection with children at the fourth of the schools visited said that he sees at least 16% of the children in this school. Many of the children he sees have learning difficulties in reading and/or mathematics but about half of them are referred because of emotional and/or behavioural difficulties. The other half of his time is spent on children in the fifth school visited and he has an office in each school.

The educational psychologist has a standing monthly meeting with the school doctor, who is also concerned with both schools and who sees children on the school's request. The official route through which children are referred to the psychologist, following the class teacher's consultation with parents, is via school doctor, municipality office and school head, but the psychologist spoke of taking referrals informally on occasion and catching up on the paperwork later. Much of the work consists of providing assessment, diagnosis and advice.

For the educational psychologist devoting part of her time to work in the sixth school visited, the pattern of work is similar but the routing of referral forms is slightly different. Here, forms go directly from the class teacher to the educational psychologist, who discusses them with the school's consultant for special education, and in each case the two decide jointly which of them will follow up the referral. In this municipality, the 25 or so external support service staff concerned with special education in the municipality's 11 *folkeskolen* meet together monthly and also try to be in the town hall on a particular day each week, so that they can confer as necessary.

The fourth and the fifth school visited are the only two *folkeskolen* in their particular municipality. The municipality's public assistance office has the services of the full-time equivalent of 1.2 clinical psychologists, three social workers concerned with social problems and two social workers concerned with allowances to compensate for people's economic difficulties. The clinical psychologists work with children and with adults, undertaking both individual treatment and family therapy, much of which is directly or indirectly related to the welfare of the children in the two schools.

Part of the work of one of the psychologists and one of the social workers is in relation to pre-school children who either have disabilities or are in families with social difficulties, and here the professional team also includes three pedagogues, who may provide support in the day care centre or in the home. The team works in close co-operation with staff of the day care centre and its emphases are on taking action as soon as a problem arises and on providing short-term help for all who need it, rather than on running waiting lists and then making longer term provision for a few. In the day care centre, which has children in the two to six year age range attending, the six children with special needs who attend currently are sometimes with ordinary children and sometimes looked after separately.

Conclusions

As this element of the study involved brief visits to several schools rather than more detailed consideration of one, the report has largely to be descriptive rather than evaluative. There are, nevertheless, features appearing sufficiently consistently in the schools to enable some tentative conclusions to be drawn concerning factors influencing their effectiveness.

The most striking feature across the schools is the high level of staffing. Because of this, the number of children per class can be small and there can often be two teachers working together with one class. This is also helped by the fact that the classrooms generally are of good size. Given these arrangements, children with special needs can be given the extra attention they need as a matter of course. There is also much professional support and advice available to teachers, both through the schools' special education consultants and through the staff of external support services, notably those employed in the educational-psychological advice offices. There is also evidence of teachers being active in obtaining in-service training.

No doubt related to the high staffing levels is the general atmosphere in the schools: relaxed, friendly, co-operative and relatively free from pressure. This is probably enhanced by the system whereby teachers work with the same children for several consecutive years and must get to know them very well indeed. It may be bolstered by the fact that assessment of children's performance, except when they reach school leaving age, appears to have a fairly low profile. All these factors must help teachers to accept children with special needs.

Given these positive features, it is surprising that there has been some growth in recent years in the number of children placed in special classes. Undoubtedly this is to some extent a response to parents' wishes, which are not always in favour of inclusive education. It is probably also in part a backlash, following a period of optimistic innovation which no longer has quite the weight of official or public support it had a decade or two ago. It may be that the development of teachers' skills in assessing children's performance and in tailoring teaching programmes accordingly requires further attention. The special classes themselves are very highly staffed indeed, to the extent that their economic viability could well be considered. Given appropriate training and motivation on the part of the teachers concerned, planned re-introduction of some of these children into ordinary classes could be feasible.

At county level there has over the years been a great deal of support for inclusive education, and this has had the strong backing of national policies and legislation. With funding for special education increasingly being devolved to the municipalities, a key question at national level must be to what extent this support should now be re-affirmed.

4. Germany

Introduction

This part of the publication is concerned with the focused visits in Germany. In the context of OECD countries generally, judging from information gathered in the previous project (OECD, 1995*a*), while there has been a trend in recent years towards integrated education in Germany, the country has continued to educate a relatively high proportion of its children in segregated settings. Among the then Member countries of the OECD, this proportion was exceeded only by that in Switzerland. Good practice in inclusive education did, nevertheless, exist in Germany and for this reason the country was included in the current study.

The visits were undertaken in Berlin during five consecutive days in June 1997 by the study's director and the study's senior consultant. Information concerning relevant policies and practice at national and regional levels was compiled mainly through interviews with senior staff of Berlin's Ministry of School Education, Vocational Training and Sport, and through the official documentation they provided. Meetings were also held with teacher trainers and a district counsellor. Provision was seen and discussed in a primary school practising inclusive education, in a special school and in a special vocational training establishment. Copies of the study's framework and key questions were given to staff interviewed. Time constraints precluded exploration of all the issues identified.

Due to the federal structure of the education system in Germany each of the 16 ministries is autonomous and can make decisions in accordance with its own political aims. The report on practice in Berlin, therefore, while providing an example of a general trend towards inclusive education, does not serve as a sound basis for generalisation concerning practice in Germany as a whole. Because of the country's federal structure, practice can vary quite considerably from one Länder to another. While the following section provides some information concerning developments nationally, it cannot properly reflect the variations between Länder.

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

A. The national pattern

Prevalence

In considering present-day German education, it must be recognised that prior to unification, the territory constituting West Germany and that constituting the German Democratic Republic (GDR) ran very different educational systems, and that while the latter is being assimilated into the patterns established in the former, many differences remain. These residual differences are particularly evident in Berlin, which provided the regional focus for the visits. Unlike the country's other 15 Länder, Berlin was formerly divided into sectors in which the educational systems differed radically.

In this report, in order to avoid over-complication, references generally are to majority practice, and disparities are only pointed out where some knowledge of them appears essential to an understanding of the overall arrangements for special education.

Densely populated at 229 people per square kilometre, in 1994 Germany had a total population of some 81.8 million distributed across its 16 Länder, including 12.2 million pupils being educated in 52 400 schools. While most of them attended schools run by the public education system, some 4% attended private schools, but these too are generally approved by and subsidised by the Land (Kappler and Reichart, 1996). Such private schools may have a religious foundation, subscribe to a particular educational philosophy or have a particular curriculum emphasis.

Statistics gathered by the Federal Ministry of Education, Science, Research and Technology (1996*a*) indicated that pupil/teacher ratios (PTRs) in Germany's ordinary schools in 1995 were 20.9 to 1 at primary level and 16.4 to 1 at secondary level. In the special schools the PTRs were 8.8 to 1 in classes for children with learning difficulties and 5.5 to 1 in classes for children with other disabilities. These figures indicate that overall PTRs in ordinary schools were between two and three times those in special schools.

Nationally, some 5% of the school population were said to be assessed formally as having a disability, with the vast majority enrolled in some form of Land special school and only a few attending ordinary schools. Estimates by the Federal Ministry of Education, Science, Research and Technology (1996*a*) of numbers of pupils enrolled in different forms of schooling in 1997 indicated that some 4% would be in special schools.

Provision

School attendance in Germany is compulsory from 6 to 18 years, with the first nine or ten years being on a full-time basis, and with the option of the remainder being a continuation of full-time schooling or a part-time attendance at a vocational school. Prior to compulsory schooling, children may attend kindergartens, run for example by churches, charitable organisations, municipalities or firms. In 1994, some 67% of three to 6-year-olds attended, and full attendance was anticipated by 1998 (Kappler and Reichart, 1996).

Schooling in primary school (Grundschule) runs for four years in most Länder, and students then transfer to the tri-partite secondary system, with the general school (Hauptschule) providing a basic education, the grammar school (Gymnasium) providing an academic education and the intermediate school (Realschule) positioned between the two. Alternatively, students may attend comprehensive schools, in which general, intermediate and grammar schooling all occurs under one roof. In 1994, about a quarter of all students attended general schools, and some 40% of all students obtained the intermediate school certificate (Kappler and Reichart, 1996).

Statistics gathered by the Federal Ministry of Education, Science, Research and Technology (1996*a*) indicated that pupil/teacher ratios (PTRs) for pupils of statutory school age in Germany's secondary schools in 1995 were 14.8 to 1 in general schools, 17.7 to 1 in intermediate schools and 16.8 to 1 in grammar schools.

For students with various types of disabilities there is the German system of special schools (*Sonderschulen*, or, in some areas, *Förderschulen*). Typically, a special school will provide largely for one type of disability, such as moderate learning difficulty (with intelligence quotient likely to be in the 50 to 75 range, usually referred to as learning disability in Germany) or severe learning difficulty (with IQ likely to be below 55, usually referred to as mental handicap in Germany).

Special schools usually provide both for students of primary age and for those of secondary age in the one school, with some eventually staying on for several years beyond compulsory school age. At pre-school level, some kindergartens are resourced specially to take children with disabilities as well as those without.

The private sector contributes significantly to the education of students with disabilities. In 1990, some 18% of special schools were run privately, subject to the laws of each Land, under obligation to meet the same standards of provision as equivalent publicly provided schools, and, subject to their meeting requirements, eligible for Land subsidy (Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, 1994, p. 111).

After five or six years in general schools, intermediate schools or the less academic streams of comprehensive schools, students not going directly into full-time employment usually enter vocational training programmes. Typically they last for three years and consist either of full-time attendance at vocational schools or, in the "dual system", of on the job training coupled with attendance for one or two days a week at vocational training schools (Kappler and Reichart, 1996). Approximately 70% of school leavers in Germany opt for traineeships within the dual system (Petersen, 1993).

Dual system training is specific to occupations and some 470 occupations have accredited training. The occupations most popular among boys include automobile mechanic, electrical fitter and business specialist in wholesale and foreign trade, and those among girls include doctor's assistant, hair stylist and office clerk. Grammar school students and the more academic students in comprehensive schools tend to continue their schooling to the end of grade 13, taking their university entrance examination (*Abitur*) (Kappler and Reichart, 1996).

Special vocational training workshops have been established in Germany for young people with disabilities who are unable to obtain places in normal training workshops. Vocational education is provided on site and some can be accommodated on a boarding basis (Wagenhuber, 1994). There are instances in which young people with learning difficulties or from foreign countries have been placed in two-year apprenticeships with less emphasis on theory (Rueling, 1996).

Under regulations of federal law, employers are required to reserve at least 6% of their total number of jobs for people with disabilities, and fines are imposed on those who do not comply (Kappler and Reichart, 1996). It was said, however, that many employers choose to pay the fines rather than to meet the quotas.

In the years leading up to the endorsement of Germany's pro-integration policy embodied in the federal declaration of May 1994, referred to in the next subsection, there had been various developments in this field, as reported by the Secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (1994, pp. 109-110).

Policy

The Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany referred to the introduction of a growing number of programmes in which children with and without disabilities were being educated together, and stated that the emphasis was shifting from a focus on the type of school in which a child should be placed to the kind of special educational help needed.

The kinds of special educational help that were being developed included counselling in relation to pre-school children with disabilities, individual education programmes for students in special schools, and collaboration between ordinary and special schools to provide joint activities for students with and without disabilities, for example in sporting events and on festive occasions. These developments were occurring in most of the Länder constituting the former Federal Republic of Germany but not to any great extent in the former German Democratic Republic.

where special schools remained largely separate and students with special needs in ordinary schools received little extra help.

Current official national policy emerged following various individual initiatives of the kind referred to in the two preceding paragraphs. In May 1994 the Standing Conference of the Ministers of Education and Cultural Affairs, which serves to co-ordinate the work of Germany's 16 Education ministries, issued a federal declaration supporting the principle of integration. The declaration included recommendations that special educational support be provided both in special schools and in ordinary schools, particularly in primary schools, and that authorities placing children take more account of the children's own neighbourhood areas (Hausotter, 1998, p. 8).

Legislation

Following unification, all the Länder constituting the former German Democratic Republic included, either in their schools acts or in separate acts dealing with special schools, provision for the establishment of special schools geared to the teaching requirements of children with particular kinds of disability, as had been recommended by the Standing Conference of Ministers in 1972 (Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, 1994, p. 110).

The Basic Law (Grundgesetz) provides the framework for the German educational system. The rights of children with disabilities to education and training according to their needs are enshrined in the constitutions of the 16 Länder. Details concerning the special educational provision in each Land are set out in its own legislation. In 1994 the Basic Law was extended by an article to the effect that no person must be disadvantaged because of disability. By 1998 nearly all the Länder had adapted their school laws in accordance with the Basic Law and in accordance with the May 1994 recommendations of the Standing Conference of the Ministers of Education and Cultural Affairs (Hausotter, 1998, pp. 5, 8 and 9).

Vocational training in Germany is governed at federal level by the Vocational Training Act, introduced in 1969 and amended periodically thereafter; for example, to fit with general European Community policy concerning labour provision. It provides a dual system framework for initial training, for further training, and for retraining.

The Vocational Training Promotion Act of 1981, as amended in 1994, sets out the conditions under which the Federal Institute for Vocational Training has been established to implement government policy in carrying out vocational training tasks (Federal Ministry of Education, Science, Research and Technology, 1996*b*; Federal Institute for Vocational Training, 1992 and 1995).

The Vocational Training Act does not cover provision in the vocational schools run by the Länder. This is subject to the various laws of the Länder concerned. For young people reaching the end of statutory schooling and not either serving an apprenticeship or taking on a skilled job, a year of full-time vocational school is compulsory (Bergmann and Ziemer, 1992).

Funding

Salaries of grammar school and special school teachers, correct to USD (PPP) were said to average USD 44 118 (DEM 90 000) per annum, with teachers specialising only in one subject (mainly working in primary schools) being paid USD 39 216 (DEM 80 000) and teachers' assistants at about USD 29 412 (DEM 60 000).

In addition to the funding allocated to everyday ordinary school and special school provision, there is some funding specifically for integration projects, some at primary level and some at secondary level, with half the project grant being provided by the federal government and half by the ministry of education of the Land in which the project is run.

In the field of disability, there is some European Social Fund support for parent groups and other voluntary bodies.

Training

The national pattern of initial teacher training is one whereby teachers are trained for work in one type of school only. The first part of this training for teachers who are to work in primary or general secondary schools usually lasts for seven half-yearly semesters and that for teachers in intermediate, grammar, special or vocational school usually lasts for eight or nine (Kappler and Reichart, 1996). Teachers then spend two years in which the working week is divided between time in a school and time on a course of higher education (Studienseminare).

Support services

Provision varies from one Land to another. Some schools have their own social workers as well as teachers specialising in special education. At regional level, schools generally can have recourse to child guidance services, staffed largely by educational psychologists, and districts also run services whereby peripatetic teachers help in and advise on work with children with disabilities.

The local education authorities decide on the type of school placement appropriate for a child with a disability, and the psychologists advising them may be employed by the education authorities themselves or by separate educational counselling agencies. Staff of the public health offices and the youth welfare offices also offer support to the schools and to the education authorities (Secretariat of the

Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, 1994, p. 114).

Parental and community involvement

Teachers are allowed time to consult with parents, parents are involved in school events, and parents are elected to school management bodies. When decisions are made concerning school placement, parents must be allowed to state their views, education authorities attempt to reach agreement with parents, and parents who disagree with the decisions made can seek redress through the courts (*op. cit.*).

There was said to be a greater resistance to inclusive education in the Länder that were formerly part of the German Democratic Republic than elsewhere. Apparently this resistance is particularly evident in educational circles, as prior to unification the stratification of classes in ordinary schools there was such that the teaching of classes relatively homogeneous in ability was the norm, and children with disabilities were placed on a residential basis, mainly in just one part of the country.

Curriculum development

There is no nation-wide curriculum, as the individual Länder exercise their own legislative and administrative authority on school affairs. However, agreements reached through the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder ensure a wide range of similarity among the various Land versions of the curriculum.

B. Regional arrangements

Prevalence

In Berlin, the Land in which the visits occurred, the school population in the age 6 to 16 range in 1997 was said to be 410 000. Statistics gathered by the Federal Ministry of Education, Science, Research and Technology (1996*a*) indicated that pupil/teacher ratios (PTRs) in Berlin's ordinary schools in 1995 were lower (18.3 to 1 at primary level and 16.3 to 1 at secondary level) than those in Germany as a whole.

Among the private schools providing for a minority of children, some were specialising in a language other than German and some in an aspect of the curriculum such as sport or music (Müller, 1996). At the time of the visits there were also said to be some seven small private special schools for children with disabilities, run by Catholic or Protestant groups or by charities such as the Steiner Foundation.

Statistics gathered by the Federal Ministry of Education, Science, Research and Technology (1996*a*) indicated that pupil/teacher ratios (PTRs) in Berlin's special schools in 1995 were lower (6.3 to 1 in classes for children with learning difficulties and 4.8 to 1 for children with other disabilities) than those in Germany as a whole.

At the time of the visits, 3.8% of Berlin's school age population were said to have been assessed as having a disability, with some four-fifths of them attending special schools and the remainder (fewer than 1% of the school population generally) attending ordinary schools.

Among students with disabilities in Berlin this constitutes an appreciable increase in recent years in the proportion who attend ordinary schools. For example, Bergmann and Ziemer (1992), referring to some 7% of the 14 560 students with disabilities in 1991-92 as attending ordinary schools, showed this itself to be, proportionally, the result of an appreciable year on year increase over a four year period.

The considerable increases over 1992 to 1997 in the proportion of children with disabilities attending primary schools rather than special schools were said to be largely consequences of the 1990 School Law statement advocating integration. With these increased numbers just beginning to reach the age of transfer to secondary education, significant changes within secondary schools were being anticipated.

The distribution of type of disability among the 999 students with disabilities in Berlin's ordinary schools in 1991-92 was referred to by Bergmann and Ziemer (1992) as being, in rounded figures, learning 27%, language/speech 22%, behavioural 13%, physical 10%, sensory 6%, severe learning 4%, other 19%.

Provision

In Berlin the pattern of educational provision for children generally is broadly the same as that pertaining nationally, the main exception being that primary schooling lasts for six years, not the usual four, with students transferring to secondary education at the age of 12 years, at the end of the 6th grade, and with the secondary phase made correspondingly shorter (Bergmann and Ziemer, 1992). While some 5% of Berlin's school age population were said to be outside the Land system to the extent that they attend private schools, it was pointed out that in these schools too the Land paid teachers' salaries, with parents only expected to meet costs of accommodation and material resources.

Some kindergartens in Berlin have places reserved for children with disabilities, and primary schools offer an optional year of "pre-school" education, for children in the age range 4/5+. Take-up was said to be very high, with over 90% of 5-year-olds attending some form of kindergarten or pre-school education. Some primary schools offer "whole-day" education and leisure provision, from 8 a.m. to 4 p.m. or even from 6 a.m. to 6 p.m., with children from disadvantaged backgrounds particularly in mind, and with supervision shared between teachers and social workers (Bergmann and Ziemer, 1992).

In September 1994, at 8th grade level in Berlin's Land secondary schools, some 12% of students were in the general secondary system, 22% in intermediate, 37% in comprehensive, and 29% in grammar (Müller, 1996). At the time of the visits, the proportion of secondary age students attending general secondary schools in Berlin was said to be down to 6%.

For Berlin children with disabilities at primary level, six main types of provision were described:

- *Individual integration*. Here a child with sensory or motor impairment, but without significant learning disability, is placed in an ordinary class, often with an extra teacher in support for four hours a week.
- *Integration class*. Typically this is a small class, of some 20 children instead of the usual 25 to 27, in which two have learning disabilities.
- *Special class in ordinary school*. This is a small class in which all the children have disabilities, mostly difficulties in learning and/or social adjustment. Children are generally placed there for periods of two or three years only.
- *Co-operative system*. Here the staff of a primary school and a special school, usually either adjacent to one another or sharing the same campus, agree to some temporary exchanging of pupils.
- *Standard curriculum class in special school*. The class of 10 to 12 children is situated in a special school but follows the ordinary school curriculum, being allowed longer to cover it than is the case in the ordinary school, and has two full-time teachers.
- *Special school class*. Here the children attend a special school on a full-time basis and follow a curriculum that has been adapted to cater for a particular kind of disability.

At each of the six grade levels in Berlin primary schools there are also opportunities for children with learning difficulties through remedial programmes, referred to by Bergmann and Ziemer (1992) as consisting of the availability of two extra lessons per class per week, which children can attend in small groups, for extra help in literacy, numeracy, science and the first foreign language.

At secondary level in Berlin, it was said that those students with disabilities who are not in special schools are likely to attend either a general secondary school or a comprehensive school. There were said to be about 110 students with physical disabilities attending Berlin's grammar schools and reference was made to one of the grammar schools as having made special arrangements to provide for some 10 students with visual impairment.

Bergmann and Ziemer (1992) referred to the proportion of foreign students in the Berlin school population as having grown progressively, from 3% in 1971, through 16% in 1981 to 23% in 1991. By 1991, at secondary level, 63% of the foreign students were attending general secondary schools, with only 16% enrolled in grammar schools.

With general secondary schools being attended by an increasing proportion of immigrants, the authors considered there to be a danger of their becoming places only for low achievers. They referred to:

- Teaching group sizes at grades 7 and 8 being kept down to 16 to 18.
- Particular attention being given to weaker students, to Turkish students being able to continue to study.
- Turkish rather than a first foreign language in some schools.
- An emphasis on pre-vocational education.
- Many students staying on beyond compulsory school age after failing to reach a minimum level of achievement.

Bergmann and Ziemer (1992) referred to students in Berlin's comprehensive schools as being streamed according to ability, with English, German, mathematics and the sciences being taught at up to four ability levels. They also mentioned remedial teaching programmes, run at two ability levels, whereby less able students could be taken in groups of 12 to 18 for help in German, mathematics and their first foreign language.

Work preparation (Arbeitslehre) was described as occurring in Berlin's general secondary, intermediate, comprehensive and special schools over grades 7 to 10, with students attending practical sessions in workplaces or at in-school bases, undertaking mechanical and domestic activities. Teaching includes pre-vocational training, economics and social studies. Throughout, there is an emphasis on information technology. If students, including those with disabilities, have progressed sufficiently by the beginning of grade 10, they may move on to vocational schools. Beyond grade 10, the majority move on to the dual system.

Berlin's special schools in 1991 were described by Bergmann and Ziemer (1992) as catering for 13 561 students and consisting of:

- 49 for learning disability.
- 23 for severe learning disability.
- 10 for speech impairment.
- 6 for physical disability.
- 5 for prolonged hospitalisation.
- 4 for hearing impairment.
- 3 for visual impairment.
- 3 for behavioural difficulty.

Reference was made to teachers in Berlin's special schools as having continuing responsibilities for the progress and welfare of the students who have left their schools, to help them in their transition to post-school arrangements. The teachers also maintain contact with employers, benefiting from exchanging ideas with them, and discussing any problems arising both with the trainees and with the employers. This "flank protection" provides an effective mixture of teaching assistance and social welfare.

Policy and legislation

The German Länder have their own school laws. The school law for Berlin refers to the responsibility of schools to develop students' talents and recognise the principle of equality for all (Bergmann and Ziemer, 1992).

Section 10*a* of the school law of 1990, as amended in 1996, states that it is the task of schools to integrate into the normal system all children with disabilities, including those with severe learning difficulties at primary level, as long as the school concerned is able to make appropriate provision. A 1994 amendment to existing legislation included an anti-discrimination clause, with specific reference made to people with disabilities.

Training for teachers in ordinary schools, special schools and vocational training establishments is governed by the 1980 law on teacher training.

Guidance

Berlin's Ministry of School Education, Vocational Training and Sport supervises the work of an educational centre, the "Berliner Institut für Lehrefort-und-weiterbildung und Schulentwicklung" (BIL). This centre offers an information and consultancy service for teachers, manages in-service training for teachers and school-based social workers, promotes curriculum development, maintains an archive, conducts research, and runs an educational library that is open to the public (Bergmann and Ziemer, 1992).

In addition, the Ministry is responsible for an institute which provides audio-visual support for teacher training, and through which teachers can improve their teaching strategies by observing video recordings of their lessons (Landesbildsstelle). Berlin is also home to the European Centre for the Development of Vocational Training, and this too can be a source of guidance for local teachers (*op. cit.*).

Funding

In Berlin, the funding for stocking and maintaining ordinary schools is distributed to districts in accordance with school population numbers, with supplementary allowances for districts with relatively high levels of social disadvantage. The teachers, being civil servants, are paid directly by the Land.

While districts are free to run their own budgets in accordance with their own priorities to some extent, it was said that much of the funding available in Berlin was being used to help districts that were formerly part of the German Democratic Republic catch up. Consequently, other districts were able to do little more than meet legal requirements, for example for welfare payments, and so were unable to institute improvements to the education system or even to fully meet existing needs for educational materials.

Training

In Berlin and elsewhere, training for primary school work can be in one main subject over seven semesters or in two main subjects over nine semesters. Special education training is in one main subject over nine semesters, and secondary training can be in two main subjects, one to university entrance level, over nine semesters (*op. cit.*).

In practice, as about half of Berlin's students destined to work as teachers now enrol into higher education on a part-time basis, working part-time to meet living costs, the average time to graduation is six or seven years. Typical contact time is 160 hours (80 for main subject, 60 for second subject, 20 for education topics) and in addition there are two teaching practice periods, each of four weeks. To continue in teacher training they must then pass their initial Land examination, which includes gradings on the basis of several oral examinations, a written examination and a long essay.

If the students pass the initial Land examination they proceed to a two year period in which they spend two or three days a week teaching in the type of school for which they are training and two or three days a week in seminars designed to help them reflect on this practical work and link it with theoretical aspects to which they have already been introduced (Studienseminar). Qualification is then contingent on their passing the second Land examination, which includes gradings based on oral and written examinations, a long essay, observations by six independent observers of the teaching of two lessons, and contributions to seminars and to the work of the schools in which they have taught.

Trainees qualifying in special education usually carry out the first year's teaching in one type of special school and the second year's in another, thus qualifying to teach in two types of special school. As an experiment, it was agreed that as part of this practical phase one of the four semesters could consist of special education teaching in an ordinary school, but it is understood that this option attracted few takers.

The rates of pay for teachers qualifying in special education, whether they teach in special schools or ordinary schools, are above those of people having trained for primary school or most secondary school work, and matched only by those trained for work in grammar schools. It was said, however, that almost half the teachers in the Land's special schools were not qualified in special education. This was thought to be due largely to a shortage in the universities of suitable postgraduate training places for students.

Qualified teachers may attend in-service training courses on a voluntary basis, and in Berlin the Ministry of School Education, Vocational Training and Sport offers some 700 to 750 courses per half year semester, attended by some 10 000 to 12 000 teachers (Bergmann and Ziemer, 1992).

The Ministry's programme for the first half of 1997, issued by its educational centre, includes over 30 offerings in special education, ranging from single sessions to weekly meetings over most of the semester, organised for integration class and special school teachers separately or together, and presenting topics such as team teaching, sex education, information technology, and the teaching of subjects such as English and art.

Support services

Some of the teachers in Berlin's ordinary schools have reduced teaching loads in order to enable them to serve as the schools' special education co-ordinators, carrying out special education teaching, assessment and advisory work. Some schools have their own social workers; at the time of the visits there were said to be about 70 based in comprehensive schools and about 30 based in primary schools.

In Berlin, assessment which may lead to a child's formally being recognised as having an educational disability is undertaken largely by staff of the school which the child would normally attend, with a teacher who has had special education training conducting any necessary tests of intelligence and school attainment.

If there is no such specialist on the staff of the ordinary school, the testing may be conducted by a teacher from the special school which ordinary school staff think the child may possibly need to attend. An educational psychologist may also be brought in on a consultative basis, as may a medical officer if there is a health issue. Parents are members of the assessment team.

The school principal passes the team's recommendation on to the Land's Ministry of Education, as the decision as to whether the child should be officially recognised as having an educational disability is made at Land level. The parents are given guidance as to the child's most appropriate educational placement, but in fact they have the right to choose the placement, given the availability of a place and suitable resourcing. Both the official disability statement and the educational placement are reviewed every two years.

For a child with a written statement of disability being educated in an ordinary school, the system generally applicable in Berlin is to provide an extra allocation of teacher time at the level of the full-time equivalent (FTE) of 0.2. In cases where children have severe learning difficulties this can rise to 0.3 FTE. In addition, at the time of the visits there were said to be 336 school helpers (about 100 FTE) allocated for work with children with disabilities in ordinary schools.

Berlin was referred to at the time of the visits as having some 2 000 teachers based in special schools, with 107 of them working for about half their time in the special schools and spending the other half in providing assessment, advice and support in relation to special education in ordinary schools.

Each district in Berlin has its own child guidance centre, headed by an educational psychologist, who is a qualified teacher as well as a university-trained psychologist (Bergmann and Ziemer, 1992). At the time of the visits there were said to be some 100 educational psychologists working in Berlin, with an additional 50 or so employed as youth service psychologists. The child guidance centre staff have links with the within-school support services.

The Health Service provides some support through physiotherapists and speech therapists, and some help is available through voluntary organisations. In addition, some 29 Berlin "civic servants", people who elect not to be engaged in armed forces activities, are engaged in support activities in schools.

Parental and community involvement

As elsewhere, the forwarding to parents of periodic written reports on their children's progress is a feature of Berlin's primary schools. It was said that if two thirds of a school's parents opt not just for a written report but for an annual individual discussion with the class teacher, this is arranged as a matter of course.

Parents of all children have the right to exercise choice of schooling. At the time of transfer from primary to secondary education in Berlin, for example, while primary school staff make a collective recommendation, parents can choose to ignore this and opt for a different type of secondary school. However, in all cases initial placement is for a six-month probationary period. So, following this probationary period, teachers may decide to transfer a student failing in a grammar school to an intermediate school or a student failing in an intermediate school to a general secondary school (Bergmann and Ziemer, 1992).

Parental organisations concerned with disability and individual parents themselves were referred to as being generally in favour of inclusive education, both in Berlin and in the country at large, although it was said that once parents have accepted a special school placement they tend to favour its continuation. Feelings of being stigmatised as a result of having a child with a disability were considered to be strong.

Curriculum development

In Berlin, the Ministry of School Education, Vocational Training and Sport issues guidelines on school curricula. These guidelines have been developed within the Land by committees of teachers and other educationalists and operate within a national framework established by the country's Standing Conference of Ministers of Education and Cultural Affairs (*op. cit.*).

C. The establishments visited

Basic information

Visits were made to educational establishments in three of the Land's 23 districts. The main visits were to a primary school providing extensively for the neighbourhood's children with disabilities as well as for those without. In addition, brief visits were made to a day special school for students with severe learning difficulties and to one of the Land's two establishments offering "dual system" vocational training to students with disabilities, with some of the students enrolled on a residential basis.

The primary school

The primary school visited, Fläming school, is one of 18 primary schools in a district which at secondary level has three general schools, two intermediate, one comprehensive and four grammar. The district has a school for children with moderate learning difficulties and shares the facilities of a school, located in an adjacent district, for children with severe learning difficulties. During the past 15 years two of the district's special schools have closed.

Fläming is Berlin's flagship school as far as inclusive education is concerned. It has a national reputation for good practice in this field, and it has been implementing its own particular style of integration, known as the "Fläming-model", since 1975, when it was initiated as a teacher-parent co-operative endeavour. The school's principles and methods of working are described in various publications, for example by Hetzner *et al.* (1997). While the school serves as a neighbourhood school, it also takes in some children from other areas.

Selection and formal assessment procedures with respect to special needs are managed by a democratically organised committee consisting largely of Fläming school staff, with some parent representation. Among the parents of the children on roll in the school generally, there was said to be competition to have their children placed in Fläming-model classes, with only about half the parents seeking such places being successful. In the Fläming-model classes, several of the children who did not themselves have special needs came from families in which there was someone with a disability.

Staff of Fläming school, in referring to arrangements in the district's other 17 primary schools, said that there was a general reluctance among staff in these schools to take on children with disabilities. All the children in the current top age level Fläming-model class, due to transfer to the secondary system shortly, were moving on, as a class, to the district's comprehensive school.

The district has relatively high proportions of immigrants, mainly Turkish, and of people who are socially disadvantaged. The unemployment level in the district was said to be 19%, by comparison with the 12% in Berlin generally. Most of the district's poorer people, however, live outside the school's catchment area. Although some 11% of those on roll at the school have immigrant parents, some are from northern European countries and are not necessarily disadvantaged economically.

The school is the largest primary school in the district, with some 600 children in the 5 to 12 year age range on roll at the time of the visits, including 60 with cognitive, emotional and/or sensory-motor disabilities. The disabilities of some were severe. For example, some of the children were still in very early stages developmentally, having little meaningful speech and being unable to sit up unsupported. There were 47 teaching staff, some part-time, adding up to the full-time equivalent (FTE) of 35, and thus providing an overall pupil/teacher ratio (PTR) of 17 to 1.

Among the 47 teachers, seven (5 FTE) were concerned specifically with special education. In addition to the 47 teaching staff, there were 11 full-time teaching assistants, all appointed to work with particular children with severe learning difficulties in the Fläming-model classes. The staffing allocated specifically for the school's 60 children with disabilities gave them a PTR of 12 to 1 and an overall pupil/adult ratio (PAR) of 4 to 1. Staff were helped on occasion by students training to be special education teachers or social workers.

The special school

The day special school visited was mainly for children and adolescents with severe learning difficulties in the age range 6 to 18 years, although some entered at kindergarten level and some stayed on to the age of 20. With 103 on roll, full-time staffing for education consisted of 17 teachers, 18 teachers' assistants and two civic servants: a PTR of 6 to 1 and an overall PAR of 3 to 1. Two trainee teachers had been assigned to the school for part of their two year practical placements and were undertaking some supervised teaching work, and some intending teachers helped out on a voluntary basis in the kindergarten.

Support staff employed in the special school included four full-time physiotherapists, one of the teachers spent about half her timetabled time undertaking speech therapy and three of the teachers' assistants were qualified as nurses.

The special vocational training establishment

The special vocational training establishment visited is funded by the Ministry of Labour. Trainees on roll are generally in the age range 16 to 22 years, though a few are older. Some 90% come from special schools and most of the rest come from general secondary schools. They are unlikely to come from special schools for students with severe learning difficulties, as entrants must be able to look after themselves and must have reached a certain educational standard. Neither are there trainees with severe sensory impairment.

At the time of the visit to the vocational training establishment, there were some 480 trainees on roll, 60% of them male, 150 of them placed residentially, and 80 of them in an initial diagnostic phase prior to their being assigned to training for a specific vocation. Education occurred typically with about ten students per class and was on offer to more than the 480 enrolled for vocational training.

Staff in the vocational training establishment, not all employed on a full-time basis, included some 65 administrators, 35 trainers, 35 teachers, 40 social workers, four psychologists, two psychologists' assistants, two medical officers and three medical assistants. Total staffing on a full-time equivalent (FTE) basis was of the order of 170.

Work seen

Only in Fläming school was there time to carry out any substantial classroom observation. The following examples, while not necessarily representative of the activities of the school as a whole, should serve to provide some flavour of the work being undertaken there.

A class of some 25 children aged 6 to 7, including three with adjustment difficulties, was taken by two teachers for a German language lesson. The lesson began with the teacher reading a story to the children while they sat on the floor, and moved on to a variety of reading and writing activities, with most in small groups and five working individually. Good standards were being achieved. A girl who appeared to be depressed spent most of the time on her own, while a boy who was attention-seeking was placed close to the class teacher. For much of the lesson, the class teacher stayed seated at the front, with individuals coming forward periodically for help, while the support teacher went round seeing to the others. At one point a third teacher came in to take a few children out for group work. The lesson ended with a class song, led by the class teacher on guitar.

A class of 17 children aged 8 to 9, being taken for a lesson on personal history by a teacher and two helpers, included three formally assessed as having disabilities: a girl with emotional disability and mild to moderate learning difficulty, a boy with Down's syndrome and associated moderate to severe learning difficulty, and a girl with severe physical and cognitive disabilities. Photographs of the class's children when they were very young were used as visual aids and activities included guessing the identities of the children in the photographs, discussing what babies do at different stages in their development, and illustrating these stages through writing and/or drawing. The lesson included an interlude in which one of the helpers, having earlier escorted the boy with Down's syndrome on a visit to the shops, told the whole class what the boy had been able to achieve.

Throughout the lesson, the atmosphere was friendly and co-operative, and the children got on readily with their tasks. Among those with special needs, the girl with a physical disability was engaged by one of the helpers in a task much simpler than those of the rest, and from time to time was also helped by one of the more able members of the class. The other girl participated fully in the class lesson, and the rest of the class was patient when she was asked by the class teacher to do relatively simple things such as identifying some of the letters on words presented to the class on flash cards, when other children could read the words as a whole. They were also spontaneously supportive when the other helper told them of the achievements of the boy with Down's syndrome; achievements which for him were difficult but which for them would have been easy. They were well aware of the roles of the helpers and accepted the fact that the children with disabilities got more individual attention.

Effective differentiation was also seen in a class of 16 children aged between 11 and 12. The teacher had two assistants: one for the class as a whole, and one assigned specifically on account of a child with severe physical disabilities. The class teacher was conducting three types of lesson in parallel: one for most members of the class and two modified at different levels for children with special needs. Partly for the benefit of the classroom assistants, each child had a sheet of paper describing the week's activities to be undertaken by that child. Modifications to the main plan included a reduction in the number of tasks and a simplification of some of the tasks themselves. The teacher referred to her weekly lesson planning time as averaging about 12 hours: eight for the basic plan and a further four for the modifications.

Accommodation and resources

All three educational establishments visited were in urban settings. Fläming school was the most crowded, although it did have a hard play area and the classrooms were of a suitable size. While resources appeared to be adequate for the work being undertaken there, staff spoke of funding for educational materials as having been cut drastically at district level, with the actual allowance per pupil in the school now being down to only a third of that recommended. The cuts were attributed to the problems of financing the improvements needed in the former East German sector to enable provision there to catch up with that pertaining in the West.

From its having been built over 20 years ago until its conversion in 1991, the day special school, situated in the former eastern sector of Berlin, had been an ordinary secondary school. Space was plentiful and, in addition to the 15 classrooms, several rooms were being dedicated to group workshop activities and to individual therapy. Equipment was extensive, and it was clear that staff had gone to a lot of trouble to have resources enriched through donations from voluntary groups and members of the local business community.

The special vocational training seen was housed in attractive purpose-built accommodation of architectural significance, with well-equipped workshops, good domestic facilities and pleasant walkways between buildings.

Staff development

The teachers taking the Fläming-model classes had not necessarily undergone a formal special education training. The tendency was for them to take on the work through interest and then to learn on the job, supported as necessary by the school's special education specialists. Teachers might take different kinds of class in different years. Several of the teachers had been in the school for many years.

While there were many opportunities for in-service training in inclusive education on offer in Berlin, and while staff of Fläming school did attend some of them, access was referred to as being very limited. Teachers said that this was partly because many people wished to attend, and partly because places were often taken up by teachers from the former East German sector, where teaching in ordinary schools had been very traditional in form and not at all geared to providing for children with disabilities.

Another stated difficulty in attending in-service training courses was the fact that many of them were run during school time, and that there were no special arrangements provided by the Land for teaching cover, so that if a teacher were to attend one of these courses the teacher's ordinary duties would have to be covered from within the school's existing staffing allocation.

Among staff of Fläming school, monthly meetings concerning work with children with disabilities were described, led by the school's co-ordinator for special education and taking place in the evenings, partly as informal social functions, in different teachers' homes, with an average attendance of about 15 teachers per meeting.

Curriculum

While the curriculum followed by children with disabilities in Fläming school is set within the framework of the curriculum on offer to children generally, they may miss out the more difficult elements, they are often helped by children who do not have disabilities, and the aspects they do participate in are likely to emphasise practical activities such as cooking, gardening, woodwork, physical education and music.

The vocational training establishment visited was set within the dual system, with three days weekly on vocational preparation and two on related education, both aspects being offered on site. Attendance was usually for three years, sometimes four. There were training opportunities for 16 occupations, with about a quarter of the trainees preparing for white collar jobs, for example as clerks or as sales assistants. Other occupations being trained for were in fields such as electronics, woodwork, metalwork, computer repairs, catering, and waiting tables.

Management

One of Fläming school's seven special education staff served as the school's special education co-ordinator, taking a leading role in assessing children, in developing individual programmes for them and in helping class teachers solve problems. Others were concerned with particular aspects of special education: for example, with learning difficulties, with emotional difficulties or with speech therapy.

Organisation

At each age level in Fläming school there were four classes. Two of the classes were of about 28 children, including one or two formally assessed as having special needs. One of the classes was of about 24 children, including two or three with more extensive special needs, and for some of the time the class teacher would have the help of another teacher or teaching assistant. For example, in one of these classes there were two adults present for 12 of the week's 19 lessons. The fourth class, the Fläming-model class, was of no more than 18 children, including some five with the most extensive forms of special need, and here the teacher was supported by either one or two teaching assistants.

While children with disabilities in Fläming school were generally taught in classes in which the others were in the same age range chronologically, occasionally they would be placed in classes in which they were a year or two older than the rest. Once placed, they almost invariably moved up the system with their classmates, and very few would repeat a year. Staff thought that repeating a year was more common in other primary schools in the district.

All the classes, including the Fläming-model classes, were taught mainly by their class teachers, helped as necessary by teaching assistants, but for part of the time they were taken by subject specialists, for example in mathematics, in science and in physical education. While most of the work, including individual work, was within the whole-class setting, children were occasionally taken out of their classes for individual or small-group help.

The full-time school day was longer for the teachers than for the children. In planning lessons, consultation among teachers and helpers tended to take place during the afternoons, after the timetabled lessons had finished. Some switching of roles between teachers and helpers, under the continuing supervision of the teachers, was said to be a regular feature of their co-operation.

As in other primary schools, a small proportion of the children on roll at Fläming school, about 5%, would remain in school after the end of timetabled class teaching time, engaging in leisure activities supervised by care workers, partly to ensure that the children were being looked after while their parents were at work.

Assessment

Prior to their entry to Fläming school, children thought to have disabilities were assessed, largely by the school's special education staff, and considered by the school's admission committee in consultation with the parents. For any child admitted on this basis, these procedures resulted in a formal statement of special need, a profile of skills which formed the basis of the curriculum to be followed, and a stipulation of the resources required.

Staff referred to Fläming school as achieving high academic standards generally, as having a local reputation for enhancing children's progress, and as being in demand among parents for this reason, quite apart from any attraction that a school practising inclusive education might have for them.

Pastoral care

Fläming school's system of pastoral care was informal and run largely by the class teachers, using the school's special education co-ordinator as the main source of advice when faced with difficult problems.

Liaison

Although the district in which Fläming school is situated had a guidance service employing five educational psychologists, school staff said they made little use of this service, preferring to rely on the special education support staff employed by the school. It was also said that following the passing of the federal School Law of 1990, while Fläming school had continued to maintain its own post of special education co-ordinator, other schools in the district had dropped it, with the result that they had made themselves largely dependent on external support services for any special education advice they might need.

Liaison between Fläming school and the local comprehensive school was extensive, with most of the children in the Fläming-model classes moving on there, remaining with their classmates. Sometimes their primary school class teacher moved up with them into the secondary school, continuing to take them for about half their timetabled time.

A neurologist visited the special school once a week and a psychologist from the health service visited once a month. Various arrangements existed for liaison with other local schools. For example, children from the special school joined in periodically with classes from ordinary schools, mainly primary schools, for activities such as disco, drama, field sports and swimming. Also, secondary school students sometimes visited the special school as part of their work on community projects.

Liaison between the vocational training establishment and companies based locally was an important feature of its work. While much of the vocational training took place on site, there were some placements with firms for part of the time; for example, young people on clerical courses had two 8 to 12 week placements. Outcomes varied from one type of training to another. The best outcomes were for those training for white collar jobs, with more than three quarters moving on to related work, but at the other extreme only about a third of catering students were placed successfully.

Conclusions

Within the OECD context, Germany has a relatively high proportion of its school population, an estimated 4% in 1997, educated in special schools, with individual schools covering both primary and secondary age ranges and with different kinds of disability provided for mainly in different types of special schools. Stated national policy, however, endorsed through Land legislation in 1990, supports inclusive education.

In Berlin, while the proportion of children with disabilities attending ordinary schools since the 1990 legislation has tripled, some four fifths of children formally assessed as having disabilities are still in special schools.

Excellent inclusive education was seen in a Berlin primary school which has a long-standing national reputation for success in this field. Teachers taking mixed ability classes, which included some children with moderate to severe disabilities, were helped on a team teaching basis by assistants who were not qualified as teachers and who were paid at a lower rate.

Classroom staff were advised and supported as necessary by the school's own special education specialists, and in looking after children with disabilities the school was largely self-sufficient, relying very little on support from the district's child guidance service. Judging from overall pupil/adult ratios for teaching and for other in-school therapeutic support, the costs of providing for children with disabilities in this setting were less than those in the special school visited, although the two groups are not of course directly comparable.

Inclusive education at secondary level in Germany presents far more problems than it does at primary level, as there is extensive stratification of schools, and of classes within schools, in accordance with the differing abilities of the students. Nevertheless, these problems were being overcome by staff of the primary school visited, through arrangements they were making with the local comprehensive school. Part of the strategy was for the children in a class to stay together when they moved up from primary to secondary, and part of it was for their teacher to move up with them for a while and to continue to teach them for some lessons each week.

The inclusive education model seen, although generally recognised within Germany as being successful, is not replicated in many other schools. Given the fact that it has been in place for more than 20 years, and the fact that legislation supports it, this is surprising. It would appear that pre-requisites for further progress in ordinary schools still include not only changes in teachers' attitudes towards children with disabilities but also extensive training in the specialised skills needed to teach them.

Both these pre-requisites have strong implications for the in-service training of teachers, but there are also implications for their initial training. If existing policy and associated legislation concerning inclusive education are to be implemented effectively, established practice in initial teacher training in special education, which perhaps provides to much emphasis on special school experience rather than in ordinary schools, needs to be re-examined.

5. Iceland

Introduction

This part of the publication is concerned with the focused visits to Iceland, undertaken during January 1998. In the context of OECD countries generally, judging from information gathered in the previous project (OECD, 1995*a*, p. 39), in recent years Iceland has been educating a fairly small proportion of its children, some 1.3%, outside mainstream classes. This consists of 0.6% in special schools and units, and 0.7% in special classes on a part-time basis.

Prior to the visits, Icelandic staff involved in the visits received a framework document (see Annex 4) which identified issues to be explored and presented key questions to be asked. The visits were undertaken by the study's director and the study's senior consultant.

Information concerning relevant policies and practice at national level was compiled mainly from official documentation provided by senior staff of Iceland's Ministry of Education, Science and Culture, supplemented through reports compiled by EURYDICE, the European Education Information Network. The visits were undertaken over four consecutive days. Time constraints precluded exploration of all the issues identified.

The main purposes of the visits were to identify aspects of inclusive education nationally, to gain some understanding of regional variations, to consider developments in selected regions, and to assess the effectiveness of arrangements for inclusive education in selected schools within those regions.

Meetings took place with the Minister of Education, with personnel carrying national responsibilities for education and welfare, with education officers and advisers based in local education offices, with university staff, and with parents. Work with students was seen and discussed at five ordinary schools for children within the age range for compulsory education, one special school and three upper secondary schools.

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

OECD 1999

A. National and local arrangements

Prevalence

Within Iceland's total population of some 270 000 (Ministry of Education, Science and Culture, 1997*b*, p. 3, and 1998, p. 9) the population of children and young people of compulsory school age in 1997-98 was reported to be around 43 500.

In Reykjavík, with some 40% of the total population, in 1997-98 17% of the school age students in ordinary classes in ordinary schools were reported by the study's country representative, in correspondence subsequent to the visits, to have special educational needs: 10% were on group educational programmes (EP) and a further 7% were on individual educational programmes. These percentages were thought to hold, broadly, for the country as a whole.

The number of students in special classes in Iceland at this time was 202, some 0.5% of the country's total compulsory school age population. Of the 202, 146 were in Reykjavík. All the country's special schools and units were situated in Reykjavík, with 162 students in special schools and 34 in special units in 1997-98, a total of a further 0.5% of Iceland's compulsory school age population. The data provided indicate that the overall pattern for the country is a total of some 18% of the school age population assessed as having some form of special educational need, as shown in Table 5.1.

The proportion of Reykjavík's school age population being educated in special schools and special units was higher than that pertaining nationally, with the children of Reykjavík accounting for 61% of the national placements in special schools and units.

This discrepancy, probably relating to the fact that the special schools and units were situated in Reykjavík and therefore more easily accessible to that municipality's residents, appeared sufficient to justify further consideration of local and national placement practices.

Table 5.1. **Percentages of Icelandic students receiving different types of special education**

Type of special education	Percentage
Ordinary class, on group EP	10
Ordinary class, on IEP	7
Special class	0.5
Special school or unit	0.5

In summary, among Icelandic students with special educational needs the percentages in different types of placement would appear to be broadly of the order indicated in Table 5.2.

Table 5.2. **Percentages of different types of placements of Icelandic students with SEN**

Placement	Percentage
Ordinary class, on group EP	56
Ordinary class, on IEP	39
Special class	3
Special school or unit	3

Note: Figures rounded to nearest 1%.

Taking the more strictly defined sub-group of students recognised as having disabilities to the extent that they were considered to need individual education programmes, and assuming that the proportion of these students nationally in ordinary classes would be roughly of the order of that found in Reykjavík, the distribution of the placements of this sub-group would appear to be along the lines shown in Table 5.3.

Table 5.3. **Percentages of Icelandic students with disabilities in different types of placements**

Placement	Percentage
Ordinary class, on IEP	87
Special class	6
Special school or unit	6

Note: Figures rounded to nearest 1%.

Provision

Since 1996, pre-school and compulsory school education had been administered through the 171 municipalities. They varied considerably in size, the largest of these being Reykjavík itself and the smallest being 50 people. Consequently, school size also varied considerably, with some schools having fewer than ten students. Municipalities also varied in the wealth per capita they could generate, and because of this schools varied from one municipality to another in the extent to which they were resourced.

Children with disabilities were often accorded priority for admission to pre-schools. A high proportion of the total population of children in the three to five year age range, 82.5% in 1995, attended pre-schools (Ministry of Education, Science and Culture, 1997*b*, pp. 8-9). While most were run by the municipalities, some were private.

For students within the age range of compulsory education, 6 to 16 years, Iceland had 197 ordinary schools, more than a quarter of which had fewer than 50 students on roll. Every student had the right to attend the local school, and the school had the responsibility of systematically integrating students with disabilities into mainstream education (*op. cit.*, pp. 5 and 11).

Fewer than 2% of children attended private schools and most of these schools received aid from the state as well as fees from parents (EURYDICE, 1996, pp. 12-13). The general arrangement was for the education authority to pay the private school the amount it would have cost to have educated the student in the local school, with the parents topping this up to the extent that the total met the private school's fees.

In 1996, for compulsory education, the municipalities employed 3 689 educators, including principals and assistant principals, with an overall student/teacher ratio (STR) of the order of 12 to 1 (Ministry of Education, Science and Culture, 1997*b*, p. 7).

In 1997-98 there were six special units, with numbers on roll ranging from 6 to 24, concerned variously with autism, physical disability, severe learning difficulty and visual impairment. Students in these units attended ordinary classes for part of their time. The overall STR in Icelandic special units in 1995-96 was 1.6 to 1, ranging from 1.1 to 1 in a unit for students with autism to 2.8 to 1 in a unit for students with physical disabilities (Ministry of Education, Science and Culture, 1998, pp. 3 and 9).

At the level of compulsory education in 1997-98, the municipalities maintained five day special schools, all situated in Reykjavík, with numbers on roll ranging from 15 to 80. One specialised in hearing impairment, two in emotional and/or behavioural disorders and two in severe learning difficulties. Data available for 1995-96 indicated that at that time the overall STR in Icelandic special schools was 1.9 to 1, ranging from 1.1 to 1 in the school for students with hearing impairment to 2.7 to 1 in a school for students with emotional/behavioural disorders (*op. cit.*, pp. 2, 3 and 9). A comparison of the STRs in different settings is presented in Table 5.4.

Table 5.4. **Student/teacher ratios, 1995-96**

Students	STRs
All students of compulsory school age	12 to 1
Students with disabilities in special units	1.6 to 1
Students with disabilities in special schools	1.9 to 1

In addition to the state provision referred to above, the Association in Aid of the Mentally Retarded, supported by state funding, operated day care centres for people in the age range 0 to 20 years, with the emphasis on work training.

In 1997-98, Iceland had 38 upper secondary schools and 13 institutions offering higher education. Whereas since 1st August 1996 the responsibility for the running of compulsory schools, including special schools and units, had been delegated to the municipalities, the state continued to run institutions offering post-compulsory education.

While there was no special schooling for students at upper secondary level, 12 of the 38 upper secondary schools provided extra teaching hours for students with disabilities, with 87 students helped in this way, one ran a programme for 20 students with hearing impairment, and seven had special units, which altogether provided for 70 students with learning difficulties (Ministry of Education, Science and Culture, 1997*b*, pp. 3-5 and 1998, pp. 2-3).

Policy

"A fundamental principle of Icelandic education is that everyone should have equal opportunities to acquire education, irrespective of sex, economic status, residential location, religion, possible handicap, and cultural or social background" (Ministry of Education, Science and Culture, 1997*b*, p. 3).

Legislation

The stated purpose of the 1992 Act on the affairs of the handicapped was to provide them with the conditions that would enable them to lead normal lives. It required services for the handicapped to aim to enable them "to live and function in a normal community along with other people" (Ministry of Social Affairs, 1994).

The 1994 law on pre-schools stated that children with disabilities of pre-school age had to be provided with any special help needed in their local pre-schools. The 1974 Education Act had stated that all children of compulsory school age were entitled to "appropriate education". The 1991 Compulsory Education Act provided for children to attend the public school located nearest to home and stipulated compulsory education for all children and adolescents between the ages of six and sixteen. The 1995 law concerning compulsory education, in order to incorporate the concept of inclusion, intentionally omitted the term special education. (EURYDICE, 1997, pp. 285-297; Ministry of Education, Science and Culture, 1998, p. 1).

While the 1995 law concerning compulsory education made no reference to special education, the subsequent regulations based on it did. Article 37 of these regulations referred to the rights of students with disabilities to special support with their studies, preferably in their local schools but if necessary in special units or special schools. From August 1996 the municipalities were obliged to ensure access to special schools or units for those students with disabilities unable to take advantage of facilities in their local schools (Ministry of Education, Science and Culture, 1998, p. 2).

The 1996 law on upper secondary schooling, while keeping responsibility for it at state level, also stated that all people in the appropriate age range are entitled to it, following the ordinary curriculum as far as possible, but in special units if necessary (*ibid.*).

Guidance

The Ministry's national educational programme for pre-schools and National Curriculum Guidelines for compulsory and upper secondary schools are referred to below, in the section on curriculum development.

Funding

While compulsory schooling was free, parents of children not yet within the age range for compulsory schooling contributed to the extent of approximately 30% of the operating costs of the publicly run pre-schools (Ministry of Education, Science and Culture, 1997*b*, p. 8).

The nationally agreed funding for students in ordinary classes took account of the fact that approximately 17% of those with special educational needs would require extra help on a group or individual basis. In recognition of this, the overall funding included a notional allowance for this purpose of a quarter of an hour per student on roll per week.

Thus a school with 100 students on roll, in addition to the staffing allocation designed to enable the school to be managed and the students taught in classes, would also justify an allowance of a further 25 hours of teaching, approximately accounting for the time of one full-time teacher, on the assumption that 16 or so of these students would have learning difficulties requiring some degree or form of individual or small group help. In fact, municipalities varied in the extent to which they funded special education in ordinary schools. For example, in one municipality visited, Hafnarfjörður, a community decision had been made to increase the general quarter of an hour per student allowance by a further 30%.

In addition to this general allowance, extra funding on an individual basis for some of the students with disabilities who had reached compulsory school age and who were in ordinary schools was provided to the municipalities through the Local Authorities' Equalisation Fund. This fund, incidentally, also met extra costs such as those involved through staff illness, the education of immigrants, and abnormally low local authority revenues. To become eligible for disability funding through the Equalisation Fund, a student must have been diagnosed by the recognised national diagnostic institute (Ministry of Education, Science and Culture, 1997*a*).

The Equalisation Fund recognised disability in 10 categories and at three levels. The level of extra funding for an individual student with a recognised disability would depend on the extent of the student's special educational need. The framework was drawn up with reference to the Disabled Persons Act (*op. cit.*).

Following the shift in responsibilities for education from the state to the municipalities in 1996, the municipalities themselves had to decide how to allocate their funding, and they did not necessarily pass all of the special education element to the schools. In Hafnarfjörður, for example, the local education authority retained part of it for emergencies, and there was an interesting local debate there as to whether this retention was really necessary or whether it just encouraged schools to compete for the extra resources known to be available. The municipalities also had to decide whether to educate individual students with disabilities in ordinary schools or in special schools and they had to meet the costs involved.

As the existing special schooling was situated in Reykjavík, this often meant that a municipality seeking special school placement would have to pay another municipality for it, and government representatives thought that this would probably lead to a reduction, at least in municipalities other than Reykjavík itself, in special school placements. Whether Reykjavík would follow this general trend, with its own special schools and presumably with some pressure to make use of any spare places in them, remained more open to speculation.

As the municipality of Reykjavík managed some students with special needs in ordinary schools and some in special schools and units, it was possible to make comparisons of the costs of their education with the costs of educating students without special needs. The two groups of students with special needs are not, of course, directly comparable, as almost inevitably those with the greater disabilities would be in special schools.

Documentation supplied by Reykjavík education authority staff indicated that whereas the average annual cost of educating a student without special needs was USD 3 167 (ISK 245 371), the cost per student with special needs in an ordinary school was USD 4 442 (ISK 344 089) and the cost in a special school or unit was USD 21 032 (ISK 1 629 333). The ratios can be seen in Table 5.5.

Table 5.5. **Ratios of cost per student with special educational needs to cost per student without special needs, 1996-97**

Students with special needs	Ratio of costs to costs of students without special needs
In ordinary schools	1.4 to 1
In special schools and units	6.6 to 1

Source: Reykjavík education authority

Training

Initial teacher training in Iceland occurred in two universities, and in each location the three year programme included a unit for all, taken over a term and occupying the equivalent of one week, on special education. In addition, elements of special education were introduced into some of the work in major National Curriculum subjects, and further study of the field was made possible later in the programme by the offering of a special education option.

For qualified teachers wishing to obtain specialist qualifications on an in-service training basis, the universities also offered postgraduate courses in special education, which were presented as particular routes within more general postgraduate education programmes. The courses could be taken either to diploma or to master's degree level. The universities and the local authorities, sometimes in collaboration, also offered periodic short courses in special education for serving teachers.

The State Diagnostic and Counselling Centre, managed by the Ministry of Social Affairs (1996, p. 2) organised short courses concerned with disability for parents as well as for education, health and social work professionals working in this field.

Following legislation in 1986, both in ordinary schools at compulsory level and in upper secondary schools, holders of permanent posts with a remit to teach students with special needs in mainstream had to have completed a one year postgraduate diploma programme in special education. To teach in special units or special schools they had to have completed a two year master's degree programme in special education (Ministry of Education, Science and Culture, 1998, p. 5).

Due to a shortage of qualified people, at the time of the visits teachers were often appointed to these posts on a temporary basis. Proportions of teachers qualified as special educators were reported to be 6% of all teachers in compulsory schools, 36% in special classes and special schools, and 0.5% in upper secondary schools (Ministry of Education, Science and Culture, 1998).

Support services

Some of the country's special educators and guidance counsellors were located in schools, both at compulsory and post-compulsory levels of education. The 1991 Compulsory Education Act authorised compulsory schools to establish pupils' protection councils, their purpose being to co-ordinate the efforts of parties responsible for the affairs of individual students in the areas of special education, counselling, psychological services and primary health care (EURYDICE, 1997, p. 297).

Iceland's 21 local education offices provided schools with counselling services and school psychological services. One of the offices visited, for example, served one of the larger municipalities, the town of Akranes, some 100 kilometres northwest of Reykjavík by road, some 40 kilometres by sea. Akranes had a total population of some 5 100, including 860 of compulsory school age, and two compulsory schools, both of which were visited. In addition, the town's four kindergarten provided for 256 children aged from 2 to 6 years. Among the two compulsory schools' total student population, the office's special education support service staff identified 23% as having special educational needs of one kind or another.

The one other office in this region, the western region of Iceland, served 15 municipalities, with a total population of some 10 000 and 13 compulsory schools. Inevitably, many of the country's municipalities had to share services (Ministry of Education, Science and Culture, 1997*b*, p. 11).

The special education service based in the Akranes office, providing assessment and advice to teachers and parents of the town's pre-school children and school aged students with disabilities, added up to the full-time equivalent (FTE) of 4.2 professional staff. This consisted of the full-time leader (1 FTE), the kindergarten deputy (0.5 FTE), two psychologists (2 FTE) and the kindergarten adviser (0.7 FTE). Thus the ratio of the municipality's total compulsory school and kindergarten population to its special education support service staff external to the schools was 266 to 1.

Another of Iceland's 21 local education offices visited served the town of Hafnarfjörður, the third largest municipality in Iceland, situated in the southern region of the country, with some 18 000 residents, including 3 200 of compulsory school age, attending six compulsory schools, two of which were visited.

Special education support services within these six schools had been strengthened by the fact that the community had decided to top up the general allowance applying nationally with respect to special education in ordinary schools by a further 30%. Special education within each school was co-ordinated by one of the teaching staff, who had five or six hours per week allocated for this purpose and who was designated the school's special education subject leader.

These six special education subject leaders met as a group with staff of the municipality's special education service once every three weeks to discuss special education issues existing in their schools. The special education service included a total FTE of eight professionals: two psychologists, four special education specialists and two speech therapists. Thus the ratio of the municipality's total compulsory school and kindergarten population to its special education support service external to the schools was approximately 520 to 1.

The third local education authority offices visited were in Reykjavík, serving 13 707 students of compulsory school age. Special education support service staff external to the schools consisted, in terms of FTEs, of 12.5 psychologists and one of the 10 FTE educational advisers. As some staff were concerned with pre-school children, this would bring the ratio of the municipality's total compulsory school and kindergarten population to special education support service staff to some 1 320 to 1.

These varying ratios, of child population to external support service staff for special education, indicate that the levels of support that the staff could provide must have varied considerably from one of the municipalities visited to another. This may of course be related in part to population size, with the smaller populations requiring at least enough staff to provide the range of expertise needed. It is worth pointing out, however, that Reykjavík, with the lowest level of external support, had the highest proportion of its students in segregated special education, and that Hafnarfjörður, with the next lowest level, had invested strongly in within-school support.

The stated emphasis, of special education support services external to schools in Iceland as a whole, was on helping schools to solve their own problems, for example through advice to individual teachers and participation in whole school improvement projects. The specialists in these services, however, were also expected to assess individual students' learning abilities at the request of teachers and parents, providing advice on the basis of this assessment (Ministry of Education, Science and Culture, 1998, p. 4). There were said to be some 130 psychologists in the country as a whole, 40 of them in the education system and the remainder working mainly in health or social services.

In collaboration with staff of counselling and psychological services, staff of special schools also provided consultation for staff of ordinary schools and for parents on inclusive education for students with disabilities and on circumstances in which transfer to segregated educational settings might be more appropriate. Decisions concerning special educational placement were arrived at through consultation between head teachers, special educators, parents, and staff of local support services (*op. cit.*, pp. 4-5).

The State Diagnostic and Counselling Centre was run by the Ministry of Social Affairs (1996, p. 2) on a multi-disciplinary basis, providing assessment, evaluation and counselling by medical practitioners, occupational therapists, physiotherapists, psychologists and social workers, particularly in relation to pre-school children with severe disabilities. The centre also ran a toy library and undertook research and training activities. Other national organisations ran centres concerned, respectively, with visual, auditory, speech, and psychiatric problems (Ministry of Education, Science and Culture, 1998, p. 4).

Parental and community involvement

Historically, parents had been highly active in securing provision, both in segregated and inclusive educational settings, for individuals with disabilities. Recent developments had included a strengthening of the voluntary organisations, not only of organisations consisting mainly of parents who had joined because of their own children's disabilities, but also of organisations run by people who themselves had disabilities.

Parents were said generally to be in favour of inclusive education but in the past, where a segregated placement had existed, they had often been advised to accept it. As inclusive education provision became more common, parents would be in a better position to see what possibilities it offered.

For parents preferring inclusive education, recent legislation and associated policy statements had placed them in a strong position to demand it. Many individual parents, as well as those actively involved in the work of non-government organisations (NGOs), also used statements issued by international bodies as reference points. They had been helped to do this by the Icelandic ministries of education and social affairs, through their translation and distribution of documents such as the Salamanca Statement (UNESCO, 1994) and the United Nations Standard Rules.

Curriculum development

The Ministry issued a national educational programme which pre-schools were to follow and, from 1989, National Curriculum Guidelines, which eventually covered both compulsory education and upper secondary education (Ministry of Education, Science and Culture, 1997*b*, p. 5).

These guidelines indicated that students with special needs in mainstream settings should work towards the same curriculum objectives as the other students, albeit via different routes. In special classes and special schools, teaching objectives could vary, depending on the kind of disability involved (Ministry of Education, Science and Culture, 1998, p. 6). The guidelines also introduced new areas of instruction, including addiction prevention and equal rights (EURYDICE, 1997, p. 286). Although the National Curriculum was being developed, at the time of the visits it was still incomplete and its full implementation was not expected until the following year.

Both in inclusive and in segregated settings, special education specialists had the responsibility of writing individual education programmes and reviewing students' progress at least annually (Ministry of Education, Science and Culture, 1998, p. 7).

The Ministry's National Centre for Educational Materials developed educational materials at compulsory school level and distributed them free to students (Ministry of Education, Science and Culture, 1997*b*, p. 5). It was said that by the time of the visits there had been useful development of materials for students with special needs in years 1 to 4, but that materials for the older students had to be adapted mainly by the teachers themselves.

Evaluation

For students generally, assessment of progress was periodic, systematic, and organised nationally. Students sat for examinations in Icelandic and mathematics in the 4th grade and again in the 7th grade, and in Icelandic, Danish, English and mathematics in the 10th grade. Results went to schools and to parents, and from 1997 onwards were also published more widely.

The class teachers were the people primarily responsible for formative and summative assessment of their students' progress towards targets set in the individual education programmes. In examinations, some students, for example if they had been formally diagnosed as having dyslexia, hearing impairment or physical disability, could be allowed to have extended time, to respond orally or to have interpreters or scribes (Ministry of Education, Science and Culture, 1998, p. 8).

Further developments

Judging from discussion with government representatives, it seemed likely that the proportion of children with disabilities being placed in special schools would diminish further in the coming years. This would be partly a function of declared national policy, and partly a result of the responsibility for funding special school places having shifted in 1996 from the state to the municipalities. Because of this shift, the municipalities might be reluctant to pay for places in special schools run by other municipalities and might look harder at ways of managing the students concerned in their home schools.

B. The schools visited

Basic information

Visits were undertaken to schools in three of Iceland's larger municipalities: five ordinary schools for children within the age range for compulsory education, one special school, and three upper secondary schools. As only a short time could be spent in each, there were not opportunities to sample classroom activities to any great extent or to explore all the issues identified in the study's framework. Consequently, views formed of the work being undertaken are impressionistic.

A development only referred to as occurring in one school should not be taken to imply that it did not exist in any of the other schools visited, as different aspects of the work were sampled in different schools.

The first two compulsory schools visited were situated in Akranes. Between them, they provided for all the municipality's students of compulsory school age requiring day schooling, and to that extent were fully inclusive.

The first of these two schools to be visited had 400 students on roll, of whom some 96 were considered to have special needs of one kind or another. It was staffed by the full-time equivalent (FTE) of 35.5 teachers, of whom 5.5 FTE were allocated specifically for special education, and 4.5 FTE teachers' assistants, all allocated for special education. The overall student/teacher ratio (STR) in the school, therefore, was 11 to 1, and the overall student/adult ratio (SAR) was 10 to 1.

The figures also indicate that for students without special needs the STR was 13 to 1, whereas for students with special needs the STR was 17 to 1 and the SAR was 10 to 1. This was not necessarily the case, however, as the attention given by class teachers and special needs staff to students with or without special needs would vary from time to time, depending on demand, and would differ from one student with disabilities to another.

The school ran a special education base for ten of its students, from which individuals were integrated into ordinary classes for varying parts of the school day, and this base served the whole of the municipality. Maintaining this base and placing students in it was a matter for the local authority rather than for the school. The school's staffing allowance took account of its existence, however, and decisions concerning the deployment of special education staff and the extent to which the students with disabilities attended ordinary classes were made by the head of the school.

In the recent past, there was said to have been only one instance of segregated schooling in the municipality. In the first compulsory school visited, a tall heavy student with autism and a proneness to aggressive behaviour initially attended ordinary classes but eventually, as his behaviour problems increased, arrangements were made for him to be looked after in a nearby apartment by two men, with a teacher visiting periodically. By the time of the visits he had moved into residential accommodation outside the municipality.

Two of the compulsory schools visited were in the municipality of Hafnarfjörður. Of the 3 200 or so young people of compulsory school age in the municipality, all but five attended their local schools. The five, all with severe disabilities, attended a special school run by another municipality, with the student's municipality paying the cost. A further 32 attended special classes, with most of them spending at least some of their time in ordinary classes. Of these 32, 26 had learning difficulties and were divided out into two special classes in two different schools, and six had emotional and/or behavioural difficulties.

The first of Hafnarfjörður's compulsory schools visited provided for students in grades 1 to 7, had 307 students on roll and was staffed by 23 full-time teachers, the school's overall STR thus being 13 to 1. The school, which worked a split shift system throughout, maintained a special class attended by eight older students in the mornings and nine younger students in the afternoons. The students were referred to as having severe learning difficulties, with IQs of 60 or below, and as attending ordinary classes for varying parts of their time. Some lived in parts of the district for which this was not the home school.

The second compulsory school visited in Hafnarfjörður provided for the full ten year range of compulsory schooling, had some 700 students on roll and was staffed by 54 teachers, some of them part-time, of whom the FTE of 3.5 was allocated to special education. In addition, five part-time teachers' assistants, employed by the health service and adding up to 2.6 FTE, worked in the school, their prime purpose being to help with the nine children with significant physical disabilities on the school roll, all of whom were fully included in ordinary classes.

The fifth compulsory school visited, situated in Reykjavík, provided for students in grades 1 to 7. Of the 450 on roll, some 47 were thought to have special needs of one kind or another, seven of them were based in a special unit and one of the seven, referred to below in the section on work seen and discussed, worked separately from the rest. Students with special needs generally spent up to 90% of their time in ordinary class and for the rest of the time were usually withdrawn in small groups, occasionally individually, mainly for extra help in reading and writing.

The school had 24 full-time and 12 part-time teachers, adding up to the FTE of 31.5, of whom 4.5 FTE were allocated to special education. Thus the STR for the school as a whole was 14 to 1. On the basis of these figures the STR for students without special needs could be said to be 15 to 1 and that for students with special needs 10 to 1, but, as indicated earlier, these ratios did not necessarily provide an accurate reflection of the deployment of staff in practice.

The day special school visited, also situated in Reykjavík, was for students diagnosed by one of the recognised national diagnostic institutes as having severe learning difficulties. Many of the students were multiply handicapped, some with health problems. This was one of two such schools in Iceland, the other one providing for students whose disabilities were less severe. For the children put forward by the local education authorities as requiring this type of schooling, decisions on admission were made by a committee consisting of representatives of the two special schools, the parents, and a representative of the local education authority in which the schools were situated.

The 29 students on roll in the special school visited were in the 6 to 16 year age range chronologically, and entrants at the age of six were generally at or below the two year level developmentally. Staffing included head, deputy head and 22 teachers, four of them part-time, adding up to the full-time equivalent (FTE) of 22. In addition there were four teachers' assistants (3 FTE), their pay being at about three quarters the level of that of teachers, and a part-time physiotherapist (0.4 FTE). The overall STR was, therefore, 1.3 to 1, and the SAR 1.1 to 1.

The first upper secondary school visited, built recently, lay on the northern outskirts of Reykjavík and had an increasing number on roll, approaching 700 at the time of the visit, mostly in the age range 16 to 20 years. Nine of the students were recognised as having severe learning difficulties, including one with Down's syndrome, one with a long history of elective mutism and one said to have psychiatric problems. The extra staffing time allocated to meet the needs of these nine students added up to that of six full-time teachers: 10 hours weekly for each of five of the students and 25 hours weekly (*i.e.* one full-time teacher) for each of the other four. The STR allocated for special education, therefore, was 1.5 to 1.

The second upper secondary school visited, also situated in Reykjavík and catering primarily for students in the 16 to 20 year age range, was one of the largest in the country, with some 1 550 on roll in day classes and a further 330 attending evening classes. The 110 full-time and 30 part-time teachers there added up to a FTE of 125, yielding the STR of 14 to 1. Among these teachers, 4.5 FTE were assigned to the school's 26 students with disabilities, along with the FTE of two teachers' assistants. In addition, 1.5 FTE came from the Institute for Communication to provide interpretation facilities for those of the students who had hearing impairment. Total STR for special education, therefore, was 4.3 to 1, with the SAR of 3.25 to 1.

The third upper secondary school visited had its main site in Akranes, with some 600 students, mostly in the 16 to 20 age range, attending. They were taught by 36 full-time and 12 part-time teachers, with many of the former also working overtime. Total FTE was 51.7, bringing the STR to 12 to 1. This upper secondary school also had two annexes, each situated in a fishing village over 100 kilometres further north, together providing for a further 70 students.

At this upper secondary school's main site there were six students with moderate or severe learning difficulties, with 2.2 FTE teachers and 2 FTE teaching assistants assigned to them. The teaching assistants were usually part-time students paid for this work at about half the teachers' rates. For special education, therefore, the staffing allowance gave an STR of 2.7 to 1 and an SAR of 1.4 to 1.

Funding

In Reykjavík, the most expensively educated student with a disability in an ordinary school was said to be the 6 year old boy with autism referred to in the next sub-section as receiving individual help. While the cost of providing this was high, local education authority staff calculated this to be no more than the average cost of educating the students attending Reykjavík's special units for students with autism.

In the first upper secondary school visited, while the extra funding allocated to meet the needs of the nine students recognised as having severe learning difficulties was sufficient to appoint six full-time teachers, the school managers were at liberty to allocate staffing as they chose, and could if they wished appoint a larger number of lower paid staff. In fact they chose to appoint teaching staff plus one developmental therapist, paid at some 80% of the teacher rate, plus one nursing assistant, paid at some 70% of the teacher rate. The teachers' assistants employed in the other two upper secondary schools visited were said to be paid at about two thirds of the rate for teachers.

Work seen and discussed

Students were seen at work in most of the schools visited. In ordinary classes, for example, students with severe learning difficulties were seen participating in a gymnastics lesson, a student with a severe physical impairment was making a cake in a domestic science lesson, and other students with disabilities made good use of computers. The time spent in each classroom, however, was usually brief and the impressions formed of the teaching and learning taking place could only be superficial. The examples that follow, while they serve to illustrate particular points, are not necessarily representative of the overall pattern of work with students with disabilities.

In one ordinary class of nineteen 8-year-olds in a compulsory school, the class teacher and a teaching assistant helped children engaged in a range of activities of their own choice, while the school's special education specialist was doing some language work with the one child in the class who had severe learning difficulties. For much of the time, break times in particular, he had one child assigned to him, with the children taking the assignment in turns. The class as a whole had been taught a certain amount of sign language, so that they could use it with them.

The class teacher, who had prepared a lot of teaching materials specially for use with this boy, met with the special education specialist once a fortnight to review the boy's progress and prepare further work. Reports were sent to the parents of all the children in the class once a fortnight, and parents and children together were invited to be involved in the planning of the children's work.

Staff of this school had made video recordings of work undertaken there by students with severe learning difficulties. For example, there was one of a girl in another class being helped to use a concept keyboard to match pictures with symbols presented in a pictographic system (the Bliss system) designed to help children in the early stages of learning to read.

In the compulsory school visited in Reykjavík, an excellent example was seen of the careful implementation of a systematic strategy designed to enable a student with a severe disability to make a gradual transition towards inclusive education. The student, by this time aged 6, had been diagnosed as autistic at the age of three and had presented much difficulty when attending a pre-school unit for autistic children. In order to meet his needs his mother had researched autism in some depth, had undertaken training in Norway in relevant behavioural approaches, and continued to be in touch with the Norwegian trainers on a consultative basis during the implementation of the behavioural training programme which they had devised.

As the boy approached compulsory school age, the local education authority's senior psychologist, who herself had undertaken training in applied behavioural analysis in the United States, considered the boy's characteristics in consultation with his mother and with staff at the local school. Helped by experts in this field from the United States, she then planned a course of education on autism for the people who were to be in regular contact with the child, and co-ordinated the implementation of the behavioural programme devised by the Norwegians.

In school, the programme was implemented by two specially trained teachers (also referred to below in the section on staff development), each employed on a 0.5 FTE basis, during the boy's four hours a day attendance at the school. The boy also had a further four hours a day of behavioural training at home, implemented by his mother and the same two teachers, who for this purpose were paid by the parents.

While most of the in-school part of the programme was implemented in a separate room on an individual basis, the boy joined his classmates at playtimes and at the beginning and end of each school day. Some of them came to join in with him periodically, and some of the work done at school was continued at home, with parent and teacher working together. As he became more used to school routines and learned to sit at a table and work quietly, it was anticipated that he would spend more time in the ordinary class. While the service being provided for him was expensive, it was thought that costs would diminish over time and that the expertise developed by the adults involved would be valuable in the future.

Accommodation and resources

The compulsory schools visited provided accommodation of good quality. One was particularly attractive architecturally. As well as providing for local children generally, this school was specially adapted to meet the needs of nine students with physical disabilities, and had lifts to ensure that these students had access to the whole school.

Overall, the number of classrooms available in the compulsory schools visited was far fewer than the number of classes to be taught. In one of them, for example, 34 classes shared 19 classrooms. In order to maximise existing accommodation, compulsory schools would often run a split shift system, whereby half the students would attend, say, from 8 a.m. to noon, with the other half attending from 1 p.m. to 5 p.m.

The first compulsory school visited also had day care arrangements, using the facilities of the special education unit, from 2 p.m. to 4 p.m. Whereas other schools only offered day care facilities for children up to the age of 10 or so, here these facilities also were available for young people up to the age of 16. Consequently, students with disabilities and any students needing to attend the school for the whole day received their education in the mornings. About a quarter of the students on roll at the school were said to use the day care facilities, with parents paying for the service provided.

Most of the work in the compulsory schools visited took place in general purpose classrooms, although some of the rooms were dedicated to more specific areas of the curriculum, with some teachers specialising in particular subjects, such as art, cookery, craft, music and science. Science, apparently, had been developed relatively recently in the schools, and in the one school in which science resources were observed they were still very limited.

The special school visited was particularly well resourced for most activities and had a swimming pool, a jacuzzi, a massage room, and specialist rooms for subjects such as art, domestic science and music.

In the first compulsory school visited it was evident that the recording system used for individual education programmes was the same as that developed in the special school visited the previous day, although the range of subjects covered differed to some extent.

A decade earlier, the university concerned with teacher training in Reykjavík had arranged for an educational consultant from a university in the United Kingdom to set up substantial in-service training courses in special education for teachers in Iceland, some of the courses involving weekly meetings during term over a two year period, with teachers from many ordinary schools as well as from special schools attending. Courses were still in existence, though on a smaller, and it was clear from these two schools and from elsewhere that their impact had been extensive.

The fifth compulsory school visited epitomised good practice in developing in-service training and putting it to use co-operatively in meeting complex educational needs. The mother had taken considerable initiative in securing for herself and her son's teachers training to help them to understand and treat her son's autism. Key staff of the local school, the head, the deputy and two special educators, had attended a workshop on autism in anticipation of the boy's enrolment. The local education authority's senior psychologist had co-ordinated the planning of a programme designed to meet the boy's needs when he entered the school and to continue to help him in his life at home. All parties were co-operating in implementing the programme, and they were meeting periodically as a planning team to monitor its implementation.

Curriculum

Reference has already been made, in the previous section, to the fact that the individual education programmes in the first compulsory school visited and in the special school visited used the same format. Staff of the special school set specific objectives for individual students in several areas of the curriculum. The individual education programmes included detailed sets of objectives, a justification for each objective, and statements concerning the teaching methods through which these objectives were to be achieved. Areas of the curriculum covered systematically through individual education programmes included language, mathematics, art, music, domestic science, sport, self-help, citizenship, education for leisure, and vocational preparation.

The upper secondary schools visited all offered academic, vocational and trade courses. The students with disabilities who attended ordinary classes for only part of their time were likely to be included for subjects such as metalwork, sport and woodwork.

Management and organisation

Decisions concerning the education of the students with disabilities in each of the compulsory schools visited were generally made by the school's welfare committee, which met regularly and included the head of the school, special education staff, and class teachers in particular instances, with external support service staff and parents attending on occasion. Issues discussed might include progress on individual education programmes and the amount of time that students with disabilities might spend in ordinary classes.

Most of the work in the compulsory schools visited was undertaken in mixed ability groups, with special education occurring in the ordinary classroom, the class teacher being helped as necessary by either a special education specialist or an unqualified teaching assistant. The general pattern was for the class teacher to stay with the same children for several years, moving up the school with them. A common arrangement was for a teacher to take a class through grades 1 to 7, with another teacher then taking them through grades 8 to 10.

In two of the schools visited, as was the case in a minority of compulsory schools in Iceland, the students moved on to a different school after grade 7. While most classes in the compulsory schools visited were of mixed ability, it was said that in some of Iceland's larger schools, by the time they reached grade 10, the students had been divided out into ability groups. Even where this did not happen, by the time students reached this age they were in any case taking options, and inevitably there would be a tendency for the most able students to take the academically more challenging options.

Some of the students in the special school visited engaged in exchange visits with a class in an ordinary school, and a few students attended mainstream classes in ordinary schools for part of their time.

In the first upper secondary school visited, there were 45 first year students, about a quarter of the year group, who in the previous year at compulsory school had not met school leaving requirements. They were in effect repeating their final compulsory school year, in three classes of 15. Usual class size was 25 for ordinary classwork and 15 for practical subjects. While school policy was strongly in favour of providing for students with severe disabilities, the school was in the early stages of doing this and most of the provision for the nine students recognised as requiring extra resources to meet their severe disabilities was on a segregated basis.

Seven of these nine students were taught mostly in one or other of two special classes, with two of them taking English or mathematics in mainstream classes for an hour or two each week and a further two due to be included in metalwork classes for two mornings a week. Two students had originally been placed in the nearby adult centre but following parental pressure were only there for half their time, spending the remainder in the upper secondary school, mostly in a special class but also attending ordinary classes in drama, music and physical education. Some of the school's students preparing to be social workers, as part of their training, spent part of their time helping the school's students with disabilities.

The second upper secondary school visited also ran three classes, each of 15, for first year students who had not yet met school leaving requirements. Fully included in ordinary classes were five students with hearing impairment and seven with physical disabilities, some of whom were in wheelchairs. Mainly in a special class, but attending ordinary classes for two or three of the week's 36 lessons, were 14 students with moderate or severe learning difficulties.

The third upper secondary school visited, with some 93% of the region's compulsory school leavers enrolling and some 60% of entrants eventually obtaining graduation certificates, also ran a separate preparatory course for those who had not reached the school leaving standard at their compulsory schools, and 15 students were currently enrolled on this course.

Liaison

The compulsory schools visited generally had regular contact with special education support service staff of the local education authority. In one of the schools in Akranes, for example, weekly meetings were held with a psychologist to discuss students' individual educational programmes. In Hafnarfjörður, the schools' special education subject leaders met as a group with staff of the municipality's special education service once every three weeks. The first school visited had visits from a psychologist for half a day a fortnight and from a speech therapist for a day a week, and the second school visited also had periodic visits from occupational therapists and physiotherapists.

Staff of the special school visited ran a programme of co-operation with, and in-service training for, staff of ordinary schools, in order to assess and meet the needs of individual students with disabilities. A student with disabilities and the class teacher from the student's home school would spend time together in the special school, where staff would help the teacher work out a programme which could then be implemented with the student in the home school.

Special school staff also spent some of their time, perhaps two or three weeks per term in some cases, working with teachers in ordinary schools. Special school staff also ran training courses for teachers, parents and others on aspects of severe learning disability.

Arrangements had been made in the third upper secondary school visited for the students in the special class there to exchange places temporarily with similar students based in a further education college in Scotland.

Conclusions

At the time of the visits, special education in Iceland was well established in accordance with the country's declared policies of equal opportunities for all. Legislation required services that enabled people with disabilities to remain in their normal communities and the most recent law concerning compulsory education embodied the spirit of inclusion by intentionally omitting the term "special education".

More than 98% of Icelandic students of compulsory school age attended schools run by the state, 18% of school age students in state schools were considered to have special educational needs, and almost all of them were looked after in ordinary classes, with only 0.5% of the total school age population educated in special classes situated in ordinary schools and only 0.5% placed in special schools and units. In Reykjavík, the proportion of students placed in special schools and units was higher than that in the country as a whole, and this is an issue for consideration.

In 1996, responsibilities for the management of education had been delegated to the 171 municipalities. Many of the municipalities were very small in population, and if they wished to place students in segregated establishments they would have to rely on facilities existing in larger municipalities and pay them for the services provided. Ministry officials considered that this might add to existing pressure to provide for students with disabilities within ordinary schools.

The cost per head of educating students with special needs was calculated by the staff of the Reykjavík education authority. This amounted to 1.4 times the cost of educating students without special needs if those with special needs remained in ordinary schools, 6.6 times if they were placed in special schools and units. The two groups were not, of course, directly comparable, as almost inevitably those in special schools and units were the ones with the greater disabilities.

Funding for students with special educational needs varied from one municipality to another but in general terms was of two kinds. Firstly there was an addition to the general allowance per student, made on the assumption that a proportion would have special needs and thus require some form of extra help. Secondly there was a specific further allowance for individual students diagnosed by professional staff of a recognised national centre as having particular disabilities, and this could itself be at one of three levels, depending on level of severity of disability.

A condition of this further allowance was that the student concerned would follow an individual educational programme and that progress on this programme would be reviewed periodically. Some two fifths of the students with special needs in ordinary classes were on individual education programmes, with the class teachers often being helped for at least part of the time by teaching assistants.

Students seen to be on individual education programmes, both those in ordinary school and those in a special school, were following the same kind of plan, rigorously conceived, carefully implemented, and in good part the result of an extensive programme of in-service training which had been funded by the state over a period of years. There were strong indications that staff development in this field had made judicious use of expertise from overseas as well as of local knowledge and skills.

The local education authorities' special education support services external to the schools varied in the extent of service they could provide. In the municipality of Hafnarfjörður, particular efforts had been made to strengthen the within-school support available, with the schools thus needing less help from outside.

6. Italy

Introduction

This part of the publication is concerned with the focused visits to Italy, undertaken during January and March 1996. In the context of OECD countries generally, judging from information gathered in the previous project (OECD, 1995*a*), in recent years Italy has been formally identifying a relatively small proportion of its population as requiring special education. With national policy firmly in favour of inclusive education, and with this policy supported by extensive legislation dating from the 1970s, almost all of this special education now occurs in ordinary classes in ordinary schools.

The visits were undertaken in Rome by the study's director and the study's senior consultant. Information concerning relevant policies and practice at national level was compiled mainly from Ministry of Public Education documentation and from country reports assembled by the European Commission (EC) and by the Education Policy Information Centre (EPIC). There were two visits, the first lasting for two consecutive days and the second for five.

The purposes of the first visit were to identify aspects of inclusive education nationally and to gain some understanding of regional variations. The second was concerned with developments in one of the country's 20 regions and with the effectiveness of arrangements for inclusive education in selected schools in a province within that region. (Each region is divided administratively into provinces with, on the average, some five provinces per region.) The region selected, the Roman region, constitutes neither one of the country's most affluent areas nor one of its poorest.

Meetings took place with the country representative for the study, with the education officer and inspectors at regional level, with university staff and students, and with health service staff serving local schools in the province of Rome. Within the province, visits were undertaken to two nursery schools, a primary school, a lower secondary school, three upper secondary schools, a vocational training centre, a university, a vocational rehabilitation centre and a medical rehabilitation centre. All the establishments visited are within Rome, either in the central area or in a suburb.

Both visits made use of its framework document drawn up in the light of the main findings of the preceding project (OECD, 1995*a*) and revised to some extent during the country visits constituting the early part of the current study. As arrangements were agreed for brief visits to a range of establishments rather than more in-depth study of one or two, it was not possible to explore all the topics referred to in the framework document. Methods of enquiry used during the visits to schools included discussions with teachers, observation of lessons, study of the products of children's work and review of school documentation.

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

A. The national pattern

Prevalence

Italy has a total population of some 57½ million, with compulsory schooling running from 6 to 14 years and a compulsory school age population of just over five million (EC, 1995). Information gathered in the previous project (OECD, 1995*a*) indicates that in 1990 1.27% of the total mainstream state school population in Italy were identified as having special educational needs. Among children of statutory school age, however, the figure was 1.9%. Ministry of Public Education statistics indicate that in 1993 it stood at 2%. By contrast, for the five year period beyond statutory schooling, it stood at 0.2%.

Abbring and Meijer (1994) refer to the number of special schools in Italy as having decreased rapidly during the 1970s, with only a few left by the early 1990s and with the majority of children with special needs by that time attending ordinary schools. By 1993, according to Ministry of Public Education statistics, there remained 107 state special schools nationally, along with 839 units, classes, and individual arrangements, more than a third of the total being situated in just one of the country's 20 regions.

Without further explanation, these statistics can be misleading. They include hospital provision attended on a temporary basis. They also include short-term and/or part-time provision offered by voluntary associations for children with sensory impairment who normally attend ordinary schools. For example, some special institutes for the blind offer vocational training in massage, telephone switchboard operation and basket-weaving (EURYDICE, 1996*a*). The total number of children receiving one or other form of segregated special education nationally at the time the statistical returns were made was 3 135, some 0.06% of the overall state school population in this age range and 3.1% of those certificated as having special educational needs.

Provision

Compulsory schooling in Italian state schools is fully comprehensive and extends from age 6+ to 11+ in primary schools and from 11+ to 14+ in lower secondary schools (*scuola media*). At lower secondary level there are some private schools but they account for fewer than 10% of the children in the age range. There is a long-standing government proposal, not acted upon as yet, to extend compulsory schooling to 16+ (EC, 1995). Modifications to class sizes and staffing arrangements for children with learning difficulties and disabilities in ordinary schools are outlined below, in the sub-section on legislation.

The special schools left by the early 1990s were referred to by Abbring and Meijer (1994) as providing for children with sensory impairment, motor disability or severe learning difficulties. Ministry of Public Education statistics for 1993 indicate that at that time the distribution of the main types of disability among children receiving segregated special education was visual 14%, auditory 10%, physical 3%, psychological 33%, and multiple 40%. In addition to special schools run by the state, there are a number of private institutions, some managed by charities, for the education of children with disabilities (EPIC, 1994).

Whereas children in the lower secondary schools have timetables of 30 hours a week, in accordance with a ministerial decree of February 1979 those in special schools for children with visual impairment attend for 34 hours weekly, the extra time being used for special technical and practical activities. In special schools for children with hearing impairment, in accordance with a ministerial decree of February 1981, attendance is for 29 hours weekly, with the timetable omitting music but providing extra art (*op. cit.*).

Policy

Since the mid-1970s, government policy has been consistently and firmly in favour of inclusive education, and much legislation has been enacted to implement this (*op. cit.*). The overall responsibility for education is divided between two closely linked ministries, the Ministry for Public Education and the Ministry for Universities and Scientific Research. They collaborate with the Budget, Treasury and Finance ministries on all questions related to funding, and with the Labour and Social Security Ministry on issues linking schools and work (EC, 1995).

Legislation

It is clear from the commentary provided by Abbring and Meijer (1994) that Italian legislation concerning inclusive education has a long and complex history, with many laws, decrees and circulars. The following is a small sample.

A law of August 1977 abolished the special classes established for children of statutory school age with disabilities. Following "functional diagnoses", conducted by the commune's specialist health service and highlighting such children's educational strengths and weaknesses, children so certificated are integrated into ordinary nursery, primary and lower secondary school classes which are not to have more than 20 children in them (EPIC, 1994). In compulsory education, the maximum number of children in classes without children certificated as having learning difficulties or disabilities is 25 (EC, 1995).

Children certificated as having disabilities and needing special provision are helped in their ordinary classes by support teachers with specialist training. A ministerial statement of July 1979 requires support teachers to be fully involved in the school's educational planning, with responsibility for integration being not just the task of the individual class but of the school community as a whole (EPIC, 1994).

In accordance with a law of May 1982, support teachers with specialist training are assigned to the schools concerned, generally at the rate of one teacher to every four children registered as needing support, but one to fewer than four, down to as much as one teacher to one child for 18 hours a week, in particularly serious cases or in schools in isolated areas. At lower secondary level, a ministerial decree of February 1979 recognises the need for individual teaching programmes and departures from standard school leaving examination arrangements in some cases (*op. cit.*).

Legislation of May 1982 provides for the allocation of specially trained support teachers to nursery schools, to facilitate the integration of young children with special educational needs. Existing integration practice in educating children below the age of six years was reinforced by government guidelines issued in June 1991, stating that "nursery schools cater for all children, including those who have adjustment and learning difficulties" (*op. cit.*).

Following a constitutional court judgement of June 1987, regulations concerning pupils with learning difficulties and disabilities in compulsory education were extended to embrace post-compulsory education. These developments were brought together in a law of February 1992, which deals with the integration of students in the 14+ to 19+ age range and in higher education. It requires the adaptation of premises and equipment, the allocation of support teachers, training for these support teachers, and arrangements whereby students with disabilities can take longer over examinations and have help to overcome any difficulties they may have in reading examination questions and communicating their answers. Universities are called upon to undertake research into various aspects of disability (Gazzetta Ufficiale, 1992; EPIC, 1994).

The frame law number 104 of February 1992 sets out criteria for the certification of children with learning difficulties and disabilities. It further enhances their integration by establishing links between educational, health and social services, by setting up interdisciplinary working groups in schools, and by providing for closer inspection of the accessibility of buildings, including schools. Interdisciplinary co-operation is further enhanced through a Presidential Decree of February 1994, which establishes procedures whereby a functional diagnosis of disability leads directly to a profile of levels of functioning. On the basis of this profile, teachers draw up an individual educational plan, implement it, evaluate its success, and plan further action (EURYDICE, 1996; De Anna, 1996).

Guidance

The Ministry of Public Education, within the framework of its responsibilities for pre-school, primary, lower secondary and upper secondary education, issues general guidelines on curricula and assessment, and sets the final examinations at upper secondary and non-university higher education levels. It promotes curriculum and syllabus changes and authorises experimentation affecting curriculum and teaching hours (EC, 1995).

The Minister of Education is assisted in the planning and supervision of educational policy by the 71 member National Education Council, membership of which includes representation from the world of work as well as from education (*op. cit.*).

The minister is also advised by the Technical Inspectorate, as are the schools. While some inspectors are based in the Ministry of Public Education and some work at regional level, their activities are co-ordinated nationally. Duties include advising schools on the organisation, development and evaluation of their teaching and in-service training programmes (*op. cit.*). Representatives of the Inspectorate said that while the staffing establishment was 600 nationally, only 350 were in post, about 75 employed centrally and the rest dispersed regionally.

Funding

The salaries and the initial and in-service training of staff in compulsory education and in most upper secondary schools are funded by the Ministry of Public Education, which transfers most of this funding to provincial offices or to individual schools. Much of the distribution of funding for school buildings, transport and teaching materials is also managed at provincial level (*op. cit*).

Any attempts to calculate the cost of providing education for children with special needs are complicated by the fact that a significant part of the cost, notably that of some of the external support services, is borne by the health authorities and the local bodies.

Some indication of the relative in-school costs of educating children with disabilities in ordinary schools and in special schools can be obtained from a comparison of staff ratios in the two types of school, although this does not take account of factors such as the costs of buildings, travelling, equipment and teacher training, or the fact that the children in the special schools are likely to have more severe and therefore more expensive disabilities. Nevertheless, as salaries generally account for a high proportion of recurrent costs in education, the comparison is worth making.

Ministry of Public Education statistics for 1993 indicate that in Italy's nursery, primary and lower secondary schools there were totals of 100 512 pupils with certificates of disability and 46 093 support teachers: an overall pupil/teacher ratio of 2.2 to 1. Within this same age range Italy's 107 special schools and 839 special units provided education for a total of 3 135 pupils and were staffed by 1 328 teachers. The overall pupil/teacher ratio, therefore, was 2.4 to 1.

In comparing these ratios, some allowance should be made for the fact that an ordinary class including a child with a disability is likely to have 20% fewer children in it than a class without. On the other hand, the fact that the special schools and units are relatively few and quite small means that their travelling costs and overhead costs per pupil are likely to be relatively high.

Overall, while the figures do not permit more than the most tentative of conclusions, they suggest that the costs of inclusive and segregated education are probably broadly comparable.

Training

Most practising nursery school and primary school teachers undertook their initial teacher training through composite academic and practical three year courses at upper secondary level only. Following legislation enacted in November 1990, however, those embarking on training from 1994 onwards follow four-year composite academic and practical courses at university level. Preparation for lower secondary school teaching includes completion of a degree or diploma in a specialist subject, followed by postgraduate training leading to a teaching diploma (EC, 1995).

Nursery, primary and lower secondary school teachers, following completion of their initial teacher training courses, must also pass a specific examination (the concorso) in teaching before acquiring permanent teacher status. Teachers in Italian state schools are employed as civil servants (*op. cit.*).

Teachers generally are not required to follow in-service training (*op. cit.*). Support teachers assigned to work in ordinary schools with children certificated as having learning difficulties or disabilities have to complete a specialist training in special education (EPIC, 1994).

Support services

Reference has already been made to within-school provision of specially trained support teachers. While initially this was envisaged as being generally at the rate of four children certified as having a disability to every one teacher, Ministry of Public Education statistics for 1993 indicate that the student/teacher ratio (STR) has decreased appreciably, to 2.18 to 1 overall. Table 6.1 shows the ratios of students with disabilities to support teachers.

Table 6.1. **Ratios of students with disabilities to support teachers, 1993**

Type of school	Student/teacher ratio
Nursery	2.30 to 1
Primary	2.31 to 1
Lower secondary	2.04 to 1
Upper secondary	2.12 to 1

The law of August 1977 introducing arrangements for support teachers also requires each district to organise a suitably equipped local health unit to provide external support services, from a social, psychological and educational team, in relation to children experiencing particularly serious difficulties. Measures set out in law also include free transport, where necessary, between home and school (EPIC, 1994).

The inter-agency co-operation required by the arrangements whereby some of the educational support services are run by the health authorities is helped by the fact that the education and health authorities share the same regional and provincial geographical boundaries. Law number 502 of 1993 requires the local health unit, with its constituent districts, to guarantee prevention and treatment services for people with disabilities and to co-ordinate its work with that of other relevant local provision, notably that of education authorities, social services and voluntary bodies.

Parental and community involvement

A child thought to have special educational needs may be referred to the local health authority by either the school authorities or by the parents, and diagnostic certification in any case requires the consent of the family (*op. cit.*).

Curriculum development

Since 1990, primary school teachers have been allocated to "modules" of two teachers to three classes or three teachers to four classes, with each teacher taking responsibility for a cluster of subjects and remaining with the same module for two or three years. As children move up through their third to fifth primary school years there is a progressive increase in the amount of specialist subject teaching, whereby a class is taught by teachers specialising in particular subjects (EC, 1995). Within this model, co-teaching, including support teaching for children with special educational needs, occurs (Abbring and Meijer, 1994).

At lower secondary level, teaching is organised on the basis of subject specialisms but teachers also have responsibility for particular classes and normally stay with the same class for the whole three years (EC, 1995). In order to aid transition, support teachers helping children with learning difficulties or disabilities in primary schools may on occasion follow them through to lower secondary schools (Abbring and Meijer, 1994).

Evaluation

At the end of the school year in which they reach the age of 11 years, children take the primary school leaving certificate examination, covering linguistic and mathematical skills and consisting of two written papers and an interview. It is very unusual for children to fail this examination but if they do so they may have to remain in primary school for an extra year and take the examination again (EC, 1995).

Children reaching the statutory school leaving age of 14 sit the lower secondary school leaving examination. While they must sit the multi-disciplinary interview and the written tests in all the three prescribed subjects of Italian, mathematics and a foreign language, those certified as having learning disabilities can have the tests revised and simplified in accordance with any modified curricula they may have been following (EPIC, 1994). Children may remain in lower secondary school for longer than the statutory three years if they have to repeat courses, and in 1991, 5.6% dropped out without taking the school leaving examination (EC, 1995).

Further developments

Although it seems inevitable that there will be a few instances in which children of statutory school age who could be taught in ordinary classes are still being segregated, they appear to be very few indeed, and in this sense inclusive education may well have gone about as far as it can go. People interviewed expressed much satisfaction with current arrangements, and government support for inclusive education continues to be strong.

There is some debate nationally, however, as to whether some schools in a given locality might have a more specific role to play with respect to children with disabilities. This would take the form of their continuing to function as ordinary schools, offering places to all the children in their catchment areas, but in addition being specially resourced to the extent that they could also take some of the children with disabilities living in adjacent catchment areas. The view was also expressed that it may be helpful for children with disabilities to spend part of their time in ordinary classes and part of it with other children with disabilities. Whether such developments are likely to occur in practice in the near future is not clear.

Beyond the age of statutory schooling, there may well be needs for further development. Despite the fact that legislation requires modification of premises and allocation of support teaching for students with disabilities in upper secondary schools, Ministry of Public Education statistics indicate that the percentage of such students there in 1993 was only a tenth that in primary and lower secondary schools.

It seems unlikely that much if any of the difference can be accounted for by school leavers with disabilities moving into employment, as among people under the age of 25 unemployment nationally in 1993 stood at about a third of the youth labour force (OECD, 1995*b*). Some school leavers were said to be unwilling to have their certificates renewed, as the process was regarded as stigmatising. If they proceed to further education without certificates they are no longer entitled to the allocation of support teachers and thus will not get the extra help they may continue to need.

B. Local arrangements

Prevalence

Ministry of Public Education statistics indicate that in 1993 the number of children of statutory school age attending the state's primary and lower secondary schools in the region was 390 119, this constituting 8.4% of the total nationally. While the region is not one of the poorest in the country, its prevalence of children certificated as having disabilities is one of the highest, standing at 2.4%. As this figure reflects numbers formally assessed, it is not necessarily an indicator solely of the prevalence of disabilities. Such figures may also be influenced, for example, by varying levels of activity of support service staff in the different regions. Table 6.2 provides regional and national comparisons in different types of schools.

In 1993 the number of children of nursery school and statutory school age in segregated special education in the region was 185, constituting 0.04% of the age range's population generally and 1.8% of those certificated as having special educational needs. Both percentages are below those pertaining nationally.

Table 6.2 **Percentages of children in state schools certificated as having disabilities, 1993**

	In nursery schools	In primary schools	In lower secondary schools	In upper secondary schools
In the region	1.06	2.19	2.70	0.30
Nationally	0.90	1.83	2.23	0.22

Provision

Table 6.3 reveals the distribution of types of disability among those in segregated special education in the region in 1993. It shows a higher proportion of children with visual impairment and a lower proportion with psychological difficulties than is the case nationally.

Table 6.3. **Percentages of children with various types of disability among children receiving segregated special education, 1993**

Type of disability	% regionally	% nationally
Visual	42	14
Auditory	5	10
Physical	0	3
Psychological	10	33
Multiple	44	40

Note Figures rounded to nearest 1%

Policy

Education policy is centralised. All public and private schools wishing to be legally authorised must conform to national laws, decrees and regulations (EC, 1995).

While national policy is firmly in support of inclusive education, co-ordination of its implementation in different areas of the country is minimal, and in practice there are large regional variations. Reported difficulties in some regions included class teachers preferring the support teacher to work with the child outside the classroom, placing the child in the ordinary class but then ignoring the child, and objections by parents of children without disabilities. Reported reasons for difficulties in implementing integration programmes included their initiation at national level without consideration of the regional perspectives, lack of relevant training for class teachers and lack of appropriate skills among support teachers (Abbring and Meijer, 1994).

Legislation

Each of the country's 20 regions, within the framework of national legislation, has some legislative, administrative and financial powers of its own (EC, 1995).

Guidance

Within each region there are several provincial schools councils, each providing advice across the province on the establishment and distribution of schools, educational guidance, the right to study, and the use of school premises for educational purposes by outside bodies. Some experimental projects and guidance services are planned at a more local level, by the district schools councils (*op. cit.*).

Representatives of the Inspectorate described their roles as co-ordinators of the work of councils at regional, provincial and more local levels, fostering links between all the different stages of education, from nursery schools to universities. Each inspector is allocated a number of schools, 200 in one instance, and may average three visits per school each year. Work is looked at within the inspector's own subject specialism but the school is also considered as a whole, for example to see whether the various laws are being complied with.

Within the special education framework, inspectors may be involved in negotiations with parents concerning their children's special educational provision. They may be consulted about curriculum modification for children with special needs generally, monitor individual education programmes for children and young people certificated as having special educational needs, or advise on ways of adapting examinations and other assessments, for example to ensure that students with auditory or visual impairment are not unduly disadvantaged.

Funding

The distribution of funds to schools is governed by the provincial school councils (EC, 1995).

Training

Representatives of the Inspectorate referred to their involvement, along with that of a group of teachers, in the region's system for the training of practising teachers. Teachers are assigned to mentors, follow a 100 hour course and take written and oral examinations. On successful completion they can register as fully qualified and are eligible for salary increases.

Support teachers working with children certificated as having learning difficulties or disabilities have to undertake further training. In recent years this has been a 1 150 hour course, taken over a two year period, which includes 300 hours of on-the-job training. The course includes the study of psychometrics, educational theory, teaching methods and relevant legislation. The teacher is trained to act as a researcher in undertaking support teaching and completes a thesis, which he or she must discuss before a commission including inspectors from outside the region.

One thesis seen, for example, included an account of the use of behaviour modification principles in developing two individual education programmes, one of which involved helping a teenage girl with Down's syndrome to develop a sense of time.

Support services

Ministry of Public Education statistics for 1993 indicate that within the region's lower secondary schools, the ratio of support teachers to children certificated as having special needs was 1 to 1.88, slightly higher than the national figure of 1 to 2.04, but in the other types of ordinary school they were marginally lower than national ratios. The ratio for the ordinary schools as a whole in the region was 1 to 2.11.

Medical and psychological support services are organised at regional level (EC, 1995), and two of the region's 12 local health units were visited. During the first visit, a meeting was held with 12 health service staff providing a multi-disciplinary support service for one of the districts of the province in which the schools to be visited were situated. The team, led by a psychiatrist and including psychologists, therapists and social workers, works with families in which there are children up to the age of 18, primarily to engage in preventing or treating mental illness among the children. Families attend the clinic in which the team are based and members of the team also undertake counselling work with teachers and parents in the children's schools.

While activities directly related to children's education form a significant part of the team's work, it was found difficult to quantify. Part of the team's work is granting certificates whereby children are registered as having a learning difficulty or disability of educational significance and are thereby entitled to the help of special education support teachers within their schools.

Work relating to certification was thought to occupy some 10% of the team's time, though in reality it required much more than this. It was considered controversial, partly because teachers put a lot of pressure on parents to go through certification procedures in order to secure more resources for their schools, partly because the procedures are required by law and are therefore mandatory upon health service staff, and partly because it detracts from preventative and therapeutic work the team consider more worthy of their time.

While the assessment process leading to certification is generally multi-disciplinary, it is not always so, and it is sufficient for only one person, either the psychiatrist or a psychologist, to sign the registration form. Because of other pressures on team members' time, certification work is not always completed.

While the law of February 1992 has re-stated criteria for the certification of children with learning difficulties or disabilities, the team thought that these criteria continued to be imprecise and referred to a continuing debate as to which children ought to be included. Whereas teachers were thought often to be keen to see certificates granted, clinic staff expressed more hesitation, partly on the grounds that certification can stigmatise the children concerned.

As well as resulting in teaching support, the certification process may result in speech therapy or physiotherapy, both of which are usually undertaken at rehabilitation centres after school hours, and assistance in the home, paid for by the municipality's social services department on the basis of advice from the health service.

Among the total child population, some 5% were thought to have mild difficulties and some 2% fell within the government definition. Of that 2%, an estimated 0.1% of the total, rather than going to school, attended rehabilitation centres or day care centres, of which there were said to be some 60 in the region, or were provided with help at home. Doubts were expressed about the effectiveness of the day care centres, which were said to be being monitored closely to ascertain whether they provided value for money.

While the local health units provide assessment, counselling and therapy services for children with disabilities and for their parents, they do not constitute the only support of this kind available to the families in their localities. During the second visit, staff of another local health unit described the ways in which the region's local health units contract out some of their work to private institutions.

The private institutions make applications at regional level. The local units offer a fixed number of places, often for work of a kind they do not have the expertise or facilities to engage in, and monitor the work contracted out. The private institutions have to be certificated as meeting health service criteria, and can be closed down by the local health units if they do not meet these criteria. As legislation gives members of the public the right to choose among certificated institutions, some competition between public and private institutions is ensured. As well as offering contracted national health service work, private institutions may undertake work which people pay for, either directly or through insurance schemes.

Parental and community involvement

Within each province, the head teachers and teachers in the schools are directly responsible to the Provincial Director of Education, who consults with the Provincial Schools Council, which includes parent representation. Parents are also represented on the district schools councils, as are upper secondary school students, trade union members and people with local economic and cultural interests. In addition, they are represented on each individual School Council (EC, 1995).

In addition to the support services run by the local health unit and by private institutions, there is also a certain amount of voluntary provision for children with disabilities, generally run by groups of parents. This is not classified either as education or as health provision, and so is not monitored by either authority. It has, however, to be registered at the local court. The Catholic church provides a wide ranging support structure, as do charity institutions, which themselves may have strong links with the church. Both types of organisation are contributed to on a voluntary basis, both by members of the community who do not have any particularly relevant professional qualifications and by people also employed professionally as doctors, social workers etc.

Curriculum development

Inclusive education arrangements are co-ordinated, planned and supported at provincial level (Abbring and Meijer, 1994). Representatives of the Inspectorate referred to their involvement in curriculum modification for children with special educational needs and in the development of individual education programmes, progress on which is noted on the children's annual report cards. In post-compulsory education, students failing courses are expected to repeat a year.

Evaluation

Representatives of the Inspectorate referred to their undertaking three inspections a year in each of the region's schools, monitoring the progress of children with special needs. It was reported that whereas some 90% of all children (and most of those with sensory or motor disabilities) proceed to upper secondary schools, only about half of those certificated as having learning difficulties do so, and some 20% of those certificated attempt to commit suicide. An upper secondary school document indicated that nationally only 45% of upper secondary school entrants obtain the final certification and that 20% drop out during the first two years.

Several of the people interviewed were asked for their views as to why inclusive education in Italy, having become extensive quite quickly about twenty years ago, had sustained itself so well. The appointment of support teachers, with government legislation and funding to back the extent of support they are to provide and the amount of training they are to receive, was thought to be instrumental. Other factors were thought to include highly supportive attitudes on the part of the vast majority of teachers, strengthened by church involvement in education and a pervading Catholic culture which upholds community help for people who are disadvantaged.

Further developments

The needs for further development at regional level and the possible action arising are likely to echo those already described at national level.

C. The establishments visited

Basic information

The primary school visited, situated in one of the less well-to-do areas of the city, is for children aged 6 to 11 and had just over 600 on roll, including 25 with certificates of disability. Of the 80 teaching staff, 13 were support teachers. Class teachers and support teachers are appointed on the basis of 24 hours a week, including two hours preparation time. Almost all the children attend for 40 hours a week, 34 hours of which are timetabled for classwork.

The lower secondary school visited has for more than 20 years served as one of the region's experimental schools concerned particularly to develop inclusive education. There were 230 pupils on roll, mostly attending for 41 hours a week, including 20 with certificates of disability. The school's 51 teachers included 21 support teachers. Teachers work for 20 hours a week: 18 hours for teaching, one for meetings and one for in-service training. Class sizes range from 20 to 26. When the pupils with disabilities leave, some three quarters enrol into upper secondary schools or into vocational training centres. The most disabled may be paid for by the state to go into private institutions, often run by religious organisations.

Upper secondary schools may be generally academic or may specialise in preparing their students for careers in scientific fields or in fields such as catering or tourism. Under 1987 legislation concerning the rights of people with disabilities, upper secondary schools have to be open to all applicants, including those with severe learning difficulties. The certification of those with special needs can continue until they reach the age of 19 years.

Students and their parents have the right of choice, even if the choice is not appropriate. For example, a student with learning difficulties wishing to enter a school specialising in tourism may be unable to develop the required facility in foreign languages. However, students with certificates of special educational need generally follow the advice of support service staff, who provide them with academic and vocational counselling before they leave lower secondary school. Some students with special educational needs leave upper secondary school with attendance certificates but without qualifications.

The first upper secondary school visited is for students aged 14 to 19 who are preparing to be either nursery school teachers or social workers. There were some 300 students on roll, almost all female, and a total of 55 teachers. Within the school premises there is a nursery school, providing for some 54 children aged 0 to 5 and also serving as a training ground for the upper secondary school students. At upper secondary level there are up to 30 students per class, but only 25 if it includes a certificated member.

In the first upper secondary school visited there were eight students with certificates, some with sensory or motor disabilities, some with moderate learning difficulties. Assigned to them were four support teachers, each providing mainly in-class support and each spending nine hours weekly on behalf of each of two girls. The school has on the staff a psychologist, who is involved in curriculum planning and undertakes some teacher training. Non-teaching staff include a technician who co-ordinates the use of audio-visual equipment.

The second upper secondary school visited is spread across four buildings and had 1 062 students on roll, 35 with certificates. A further 20 were thought to have disabilities as severe as those with certificates. Staffing consisted of 150 teachers, including 15 support teachers and one serving as the school psychologist.

The third upper secondary school visited runs courses in accountancy and had 714 students on roll, some 20 with disabilities. There were 70 to 75 staff, and six of them were support teachers.

The vocational rehabilitation centre visited is part of an independent system of communities with left wing political and Catholic religious affiliations, with two such centres in the region, 15 communities in Italy as a whole and some in South America. While the communities provide mainly for people with disabilities they are also open to people without disabilities. The aim of the centre is to provide vocational training, mostly in craftwork or in computing. The regional authority pays for places and there is some funding from European Social fund projects.

Attending this rehabilitation centre on a 32.5 hours a week basis there were 85 trainees, mostly with moderate learning difficulties, mostly in the 14 to 20 age range. On average a student will spend two years in the centre and then two or three years in an apprenticeship. Over the past 20 years or so, some 120 trainees have then been able to move into appropriate jobs. Teaching staff consisted of 16 operators, employed for 36 hours weekly, with 22 hours spent teaching in the centre and the rest concerned with trainees' work placements.

The vocational training centre visited is one of 11 such centres in the region, is organised at regional level and had 350 trainees, 40 of whom had disabilities. Trainees can be aged from 14+ through to adulthood and mix work placements with attendance, perhaps only for one day a week, at the centre. Specialist staff often come in on a part-time basis only as well, teaching specific courses.

Vocational courses include those in computing, tourism, hairdressing and gardening, with gardening being popular among the less able. Whereas most follow courses of two years in duration, those with disabilities can stay for up to four years, either taking the ordinary courses over longer periods of time or following modified courses. Individual education programmes are planned by social operators: teachers with degrees in psychology and/or pedagogy who are employed by the Ministry of Labour and paid for through European Union funds. The social operators liaise with staff and guide the trainees both in the workplace and in the centre.

Funding

As indicated earlier, Ministry of Public Education statistics for teacher and pupil numbers suggest that at national level the costs of educating children with disabilities in inclusive and in segregated settings are probably fairly similar. In the ordinary schools visited, equivalent comparisons can be made of the costs of educating children with and without disabilities. Inevitably, staffing allocations account for a high proportion of any school's expenditure, although more precise consideration of costs would also take into account factors such as training, support services, material resources, and the extent to which class teachers help learners with disabilities and support teachers help those without.

Staffing figures and numbers on roll indicate that in the primary school visited the pupil/teacher ratio for children without certificates of disability was 8.6 to 1 and 1.9 to 1 for children with disabilities making those with disabilities some 4.5 times as expensive to educate as those without. Equivalent comparisons at secondary levels suggest that the extra expense becomes less as the children become older: four times as expensive in the lower secondary school and an average of a little over three times as expensive in the upper secondary schools.

In all these comparisons, account should also be taken of the fact that class size in a class including a learner with a disability is likely to be only about 80% of that of a class without such a person.

Quality of work

The time available was used to visit several schools and therefore many classrooms. Within this style of visit it was not possible to stay in any one classroom for long enough to allow the "ripple effect", inevitably produced by the entry of foreign visitors accompanied by senior staff of the school, to subside. Consequently, the children who were seen were not engaged in their customary activities. It was possible, nevertheless, to draw some inferences from the kinds of lesson in progress and from the products of their work.

Most of the pupils and students with disabilities seen had difficulties that could best be described as moderate rather than severe. Some, however, did have severe sensory or motor impairment and some clearly had severe learning difficulties. One boy in the lower secondary school, for example, was beyond statutory school age but his general mental development was around that of the average 3 year old and he was following an individual educational programme in a class in which the other pupils were aged 14 to 15. Another teenager in the same school was both deaf and autistic, had very little language and had only a limited ability to make representative shapes out of materials such as clay.

Classwork was seen in a range of conventional school subjects. In post-compulsory education, students with disabilities were seen in their vocational training placements as well as in their classrooms. In the support services, examples of cognitive therapy, physiotherapy and speech therapy were seen.

The overall impression was that those with disabilities were generally well integrated within ordinary classes, were accepted by peers and by teachers, and where necessary were following well designed individual educational programmes. While the effectiveness of their education was highly dependent on the work of their support teachers, it also benefited from close co-operation between support teachers and class teachers.

Accommodation and resources

While the premises of the primary school visited appeared to be maintained to a functionally adequate but fairly modest level, good resources for curriculum modification were seen. Students in lower secondary schools have to buy their own textbooks, though if families are sufficiently disadvantaged economically they can obtain coupons to enable them to get the books. The lower secondary school visited has good workshop and computing facilities, the latter including a computer equipped with a voice synthesiser.

The first upper secondary school visited is extremely well resourced for observation using video recording and playback. Classrooms are on camera and the school has a centralised recording area with facilities for simultaneous recording on several screens, for selecting images and for on-the-spot editing. These facilities are used extensively in the observation and analysis of teaching practice in the nursery classes. The school also has well developed computer facilities and is on the internet, which among other things provides access to some teaching programmes. As in other upper secondary schools, students have to buy their own textbooks.

The second upper secondary school visited also has impressive audio-visual and computer resources. These include a multi-media centre with a studio, a control room and good facilities for filming and sound recording. At the time of the visit, students were engaged in rehearsing a play suitable for children. One of the computers seen was running a diagnostic test of reading ability that had been designed by a member of the school staff and was presenting the results graphically.

In the university visited, a discussion session held by two staff with a group of students with disabilities illustrated some of the problems experienced by students with visual impairment in getting access to appropriate resources. These included shortage of computers with large enough screens, difficulties in scanning text electronically to enter it into a computer and then magnify it, shortage of teachers of Braille, difficulties in learning Braille (even with a Braille teacher), expense of producing Braille texts, difficulties created by the fact that Braille texts are sometimes presented in shorthand, inaccuracies of voice sensitive typewriters (for example, if one has a cold), lack of opportunity to use the university's electronic aids at home. Despite their current problems, computers were being found to be of great help by the students. Other problems referred to included shortage of people willing to act as escorts and lack of access to the gymnasium.

Staff development

While there is a substantial programme of in-service training for teachers electing to work as support teachers, the impression given during the visits was that in-service training in special education for class teachers is a much less common occurrence. It is clear, however, that co-operation between class teachers and support teachers is extensive, and this in itself provides a form of mutual and continuous in-service training.

In the first upper secondary school visited, the psychologist runs a course in communication, which involves role-playing situations in which parents, students and teachers have conflicts that need resolving, and which practising teachers from other schools attend as part of their 100 hour training leading to registration.

The second upper secondary school visited is engaged in one research study involving a review of individual education programmes and another on access to the internet for students with mild learning difficulties.

Staff of the vocational rehabilitation centre visited were planning a training course for operators, open also to the social workers and the employers involved with the centre's trainees.

Curriculum

In the primary school visited, children with certificates were being helped largely within the ordinary classroom, with the devising of suitable materials being a collaborative effort shared by class teacher, support teacher and the school's psychopedagogue (an advisory teacher, with some background in psychology, specialising in teaching children with disabilities). Individual education plans seen, for lessons in Italian and in mathematics, were clear, systematic and detailed. They stated what was to be learnt, the methods of teaching and learning to be used, and the means by which the teacher could verify that the skill had been acquired.

In the first upper secondary school visited, the support teachers diagnose learning difficulties and decide on educational programmes in consultation with external support service staff, class teachers and parents. In developing individual educational programmes they devise short term, medium term and long term targets.

One example given was of helping a student on a psychology course to reach the level of abstraction needed to understand the differences between innate and acquired abilities. In order to help the student shift from the concrete to the abstract, the programme involved providing her with lists of abilities and asking her to classify them. Another example was of helping a student to apply arithmetical skills by assigning her to buy breaktime snacks for her classmates, logging the purchases and returning correct change.

Some of the modified programmes are vocational. A fifth year student with Down's syndrome had not been able to meet all the criteria needed to become a nursery school teacher but was able to work as a classroom assistant and to help in supervising the nursery school children at lunchtime.

Not all programmes are academic or vocational; some are social. Support teachers also promote awareness raising among the non-disabled students, counselling where necessary; for example, if girls are inclined to be over-protective or if boys start to victimise.

The students with disabilities attending the second upper secondary school visited mostly follow ordinary courses. Some have additional counselling to help identify appropriate careers.

In the third upper secondary school visited, following the ordinary curriculum in the ordinary class is the norm, with some modification where the topic may present too much difficulty. In a physics lesson concerned with variations in temperature, for example, an 18 year-old student with learning difficulties was able on behalf of her class of 23 students (the others were aged 15 to 16) to measure temperatures daily and maintain records of the results. Other students in the class processed the data further, producing graphs, calculating averages and so on.

In the vocational rehabilitation centre visited, the trainees are divided into three groups, one concerned with pottery, ceramics and floristry, one concerned with leatherwork and carpentry, and one concerned with computing. Within these areas of the curriculum, the operators help the trainees to develop generalised skills, so that they can apply these skills to making a variety of products in the workplace.

The trainees at the vocational rehabilitation centre also have to meet specific requirements set by the organisations providing the apprenticeships. Most of the apprenticeships are in public services. Placements include a bus factory, a candle factory, a bakery, a dairy farm, school canteens and the gas and telephone companies. The firms have tax incentives, as they do not have to pay employers' contributions to pension schemes. Firms with more than 35 employees also have to either be willing to take on a quota of people with disabilities or pay a fine.

Management and organisation

While the classes seen were generally organised on a mixed ability basis, the children in the top age group (10/11+) in the primary school visited were streamed out into a small class including children with disabilities and a class of about twice this number with more able children in it. The head explained that this had been done to give extra attention to a group of more socially disadvantaged children as well as to those with disabilities.

The lower secondary school visited provided a good model of interchange between class teaching and support teaching roles, helped by the fact that team teaching is a feature of the school generally. For two thirds of their teaching time the support teachers provide in-class support, and for the other third they exercise their subject specialisms, mainly in the workshops, taking classes for subjects such as handicraft, ceramics and information technology. When they are providing support to class teachers the two will sometimes exchange roles, with the support teacher taking the class and the class teacher getting to know the pupils with disabilities better.

One of the province's upper secondary schools, which happens to be concerned mainly with training for tourism, serves as a base for a regionally financed arrangement whereby local students with disabilities attend a weekly co-ordinating meeting at the school but spend most of their time elsewhere.

Accompanied by their support teachers, the students either attend suitable courses in other upper secondary schools or pursue apprenticeships selected as being ones in which their particular disabilities will not disadvantage them. Among other things, such arrangements can help to reduce the sense of isolation so easily experienced by students with disabilities and by their support teachers. Similar arrangements are made for trainees attending the vocational rehabilitation centre and the vocational training centre visited.

Assessment

In the first upper secondary school visited, if possible the staff use the same report card system for students with special needs as that used for students generally. If necessary, however, they will devise a personalised report card, demonstrating in detail the student's progress through an individualised educational programme, noting targets set and those achieved. With respect to each student, three evaluation sessions are held each year, involving health authority experts and parents as well as all the student's teachers, and perhaps resulting in modified targets or repeated attendance on the same course.

Most students in the second upper secondary school visited leave after the third year, having qualified to become social work assistants, meaning they can be employed as such by local authorities. Some stay on to the end of the fifth year, qualifying as social technicians and either going into local authority work as such or going on to higher education.

Students with disabilities in the second upper secondary school visited do not usually pass the third year examination and either stay on to try again or leave and go to vocational training courses run regionally, to train as hairdressers or carpenters for example. Most of those with disabilities staying on and passing the fifth year examination have physical disabilities only, and they take tests modified to allow for these disabilities. They do not necessarily get work following qualification, as some would-be employers do not want to employ people with disabilities and would rather pay the fine which becomes due if they do not take their quota.

Pastoral care

One difficulty experienced following post-compulsory education is failure to obtain employment, even among students who have followed apprenticeships or vocationally oriented courses. In the region's scheme where students with disabilities are based in one upper secondary school but attend a variety of other placements, attempts are being made to devise packages, each consisting of an apprenticeship and training course combination, whereby employment in the apprenticeship workplace is built in from the start as the end product. The packages include career counselling for the students prior to their entering the programmes with some programmes possibly being attenuated to meet the needs of individual students. Support is on a multidisciplinary basis, and as part of the programme the students are helped to develop their capabilities for self-appraisal.

The first upper secondary school visited runs its own centre for information and counselling, with much of its time spent in connection with health problems and drug abuse.

Liaison

External support service staff employed by the local health unit were referred to as having a duty under recent legislation to attend reviews concerning pupils and students with disabilities: each year, three institutional meetings, concerned with the school as a whole, and three operational meetings, concerned with individual students.

At primary school level, the school doctor was said to visit the school at least once a week. At the primary school visited, operational meetings were said to occur two or three times a year in connection with individual children. A meeting takes from one to two hours, is chaired by the psychiatrist from the local health unit and other external support service staff present may include a social worker, a speech therapist and a physiotherapist. Parents are invited. One of the tasks of such meetings is to draw up or review children's individual educational programmes.

The meeting attended concerned the progress of a third year child with social disadvantage and diffuse learning difficulties, and involved a psychiatrist, class teacher and support teacher. The child was following the normal curriculum with some modification, for example through the teachers' simplifying the texts and highlighting key words. Another example given was of a child who was being helped to give more structured thought to problems presented by making decisions about context, principle, action and outcome.

Liaison between the first upper secondary school visited and the local health service is extensive. For example, with respect to any entrant with a certificate of special educational need, the health service provides a written diagnosis of disability, including relevant information concerning etiology, attitudes and levels of mental and physical development.

Staff of the second upper secondary school visited said that whereas it used to be the doctor making the diagnosis who recommended the number of hours support teaching per week a student should have, the allocation now tended to be determined at the institutional meetings, and could range from 4 to 18 hours weekly.

Staff of this upper secondary school said that external support service staff were reluctant to attend meetings at the school, as they were not paid to do so, and therefore rarely did. Support teachers sometimes visit the external support staff in their local health units, perhaps about three times a year on average for each support teacher. Most of the students with disabilities also attend rehabilitation centres, usually daily and usually after school. Their being overloaded was regarded as a problem, and suicide was mentioned as a potential hazard.

The medical rehabilitation centre visited is an example of a private institution to which the local health unit contracts out work. It is a highly specialised establishment, the only one of its kind in the region, conducting research as well as offering treatment. The centre specialises in rehabilitation following physical injury, commonly through motor vehicle accidents, and has 300 residential places. In addition it provides for children and adults with other kinds of disability, mostly on a day basis, for example through cognitive therapy, physiotherapy and speech therapy.

There were 56 children attending the medical rehabilitation centre on a day basis, some of them in infancy, and mostly brought in by their parents. Those of school age usually attend outside school hours or at times when less important aspects of the curriculum are timetabled. Staffing for the centre as a whole included 31 medical practitioners, 20 to 25 part-time occupational therapists, 77 physiotherapists, 10 psychologists and seven speech therapists.

Conclusions

In the schools visited, children of statutory school age with certificates of disability are well served by the system through which they are provided with support teachers in smaller classes in ordinary schools. The work seen and discussed indicated that most of the extra help continues to be provided within ordinary classes, individual education programmes are carefully planned and well structured, there is extensive consultation between support teachers and class teachers, and the children are generally well accepted as part of the school.

One factor contributing to the successful maintenance of this support system both locally and nationally, over a period of some two decades, is probably the fact that only a small proportion of children of statutory school age are placed in this category, some 2% nationally. These children are then given quite a lot of extra support to ensure that they remain in ordinary classes. This not only focuses resources on those that really need help, but also carries the strong implication that children with disabilities not severe enough to warrant certification should also be educated in ordinary classes.

Other influential factors, in addition to the civil rights awareness and associated political will leading to the legislation which first established this system, appear to include the following:

- Effective arrangements, involving the inspectorate, to provide substantial training for support teachers.
- Legislation repeatedly drawing attention over the years to government policies favouring integration and ensuring that support teaching is adequately funded.
- Some monitoring from outside the education system, of the extent to which certificates of disability are granted, and of the extent of teaching support that they accrue.
- A pervading culture of community support, with Roman Catholic values embedded, for people with disabilities.

One problem that emerged in the running of the certification system is the understandable fact that local health unit personnel who operate it may well have their priorities elsewhere, and so may have some difficulty in giving it the time it really needs. While one effect of this is that it may keep the numbers of children with certificates down, it is not a very constructive way of doing this.

As more than 99.9% of children of school age remaining in the public education system are now educated in ordinary schools, it would appear that statutory education in Italy is about as inclusive as it can be. While it may cost over four times as much to educate a child with a certificate as it costs to educate an ordinary child, from the point of view of costs it seems to make little difference whether this education takes place in the ordinary school or in a segregated setting.

While transition from statutory schooling into eventual employment is undoubtedly a problem for school leavers generally, it appears to present a particular problem for those with disabilities. Although students with certificates of disability in upper secondary schools can be helped just as effectively through support teaching as they were when they were in compulsory education, only about a tenth of those with certificates at lower secondary level carry these certificates into post-compulsory education, and may well therefore fail to receive the extra help they may continue to need. Current attempts to develop integrated further educational, vocational and employment packages for young people with disabilities may help to overcome this problem.

7. United Kingdom

Introduction

This part of the study is concerned with the focused visits to the United Kingdom, undertaken during February and March 1995. In the context of OECD countries generally, the United Kingdom occupies a middle position as far as inclusive education is concerned, with countries such as Italy, Norway and Sweden integrating a higher proportion of their children with special needs into ordinary schools and countries such as Germany, the Netherlands, Switzerland and the United States placing a higher proportion in special schools (OECD, 1995*a*).

The visits were undertaken in England by the study's director, the study's senior consultant and a senior research officer from the National Foundation for Educational Research (NFER). While educational principles and practice in England are not altogether the same as those in other areas of the United Kingdom, in broad terms they are similar, and it is here that most of the United Kingdom citizens reside.

Information concerning relevant policies and practice in England was compiled mainly from summary documentation made available by the NFER (EPIC, 1995), supplemented through other recent publications and through contact with staff of the country's Department for Education (DFE). There were two visits, the first lasting for two consecutive days and the second for five.

The visits were to Derbyshire, one of England's then 109 local education authorities (LEAs). The LEA is set fairly centrally within the country and has a mixed rural and urban population. The urban areas have experienced decline of traditional industries with attendant unemployment and social disadvantage. In the small towns and villages there are some affluent families as well as those experiencing serious deprivation.

The first visit included discussions with managers and advisers concerned with special education and its support services. It also included preliminary discussions with staff at the exemplar school, a secondary school set in a small town with a rural area surrounding and a city fringe nearby. The school was recognised within the region as exemplifying good practice in providing inclusive education for children with learning difficulties.

Both visits made use of the framework document drawn up in the light of the main findings of the preceding project (OECD, 1995*a*) and revised to some extent as the visits and associated analysis of documentation proceeded.

In the second visit the time was spent mainly in the school. Methods of enquiry included not only discussions with teachers, children, parents and governors but also observation of lessons, study of the products of children's work and review of the school's documentation. Some of the discussions with external support service staff and their managers took place outside the school and some of the time was spent visiting one of the LEA's special schools.

All costs are expressed in USD, corrected for purchasing power parities (PPPs) and in the national currency.

A. The national pattern

Prevalence

The 1993 Education Act stated that a child has special educational needs "if he has a learning difficulty which calls for special educational provision" and referred to such provision being required if children's learning difficulties were significantly greater than those of the majority of children of the same age, or if their disabilities were such as to hinder their use of educational facilities of a kind generally provided for children of that age. This act recognised the existence of special educational needs not only among children of statutory school age but also of those in the age range 0-5 years.

Among children of school age, the Warnock Committee, (1978) estimated that 20% would have special educational needs at some stage of their schooling, and this estimate continues to be adhered to. The Code of Practice (Department for Education, 1994*c*) presented it as a national statistic, whilst noting that there was significant variation in prevalence from one area to another.

The number of children whose special educational needs are of such a severity as to require multi-professional assessment resulting in a formal statement, however, is far fewer. (A statement is the result of a multi-professional assessment of the child and identifies the additional resources to which the child is entitled by law.) Almost half of those with statements remain in ordinary schools. The DFEE statistics for 1998 indicated that 2.9% of children had statements and 1.3% were in special schools. Since the introduction of statements in 1983, the percentage of children in special schools has fallen, from 1.5%, and the percentage with statements has increased.

Provision

The vast majority of children with SEN are educated in ordinary classes in state maintained ordinary schools which are overseen by the LEAs. Nevertheless, at the time of the visits, nearly a quarter of secondary schools and a few primary schools were maintained directly by a central funding agency. Given parental support, LEA schools could apply to the Department for Education to become grant maintained. If they were successful, the grants they received included extra allowances to enable them to buy in any external support services they thought they needed. Outside the maintained system, some 8% of the country's schools were independent schools, their income being largely from fees paid by parents.

In all these three types of ordinary school some of the children on roll have special needs, though the proportion is likely to be higher in LEA schools than in grant maintained schools or in most independent schools. Some children with special educational needs, rather more than the number with statements, receive additional part-time help, traditionally through withdrawal from class for small group or individual work, but increasingly through extra support within the ordinary classroom.

In many LEAs schemes have been developed, often following the Portage system, whereby home visitors help the parents to teach their own children (Her Majesty's Inspectorate, 1990). As these children move towards statutory school age, many LEAs also support their part-time attendance in the company of ordinary children at play groups or nursery schools. Nationally, some 90% of children aged 3 to 5 have some experience of pre-school provision, much of it in independently run establishments.

Full-time special classes are rare in primary schools. There are some primary schools that are resourced to provide special units for children with specific disabilities, in vision, hearing or speech for example, and here there is usually some degree of integration into ordinary classes. Such children almost invariably have statements of special educational needs.

Most secondary schools provide for children in the age range 11 to 16 and many also provide for students aged 16 to 18. Children may be taught in mixed ability classes for most subjects, with some setting into different ability groups for subjects such as mathematics and English, or they may be divided into ability bands for most or all of the curriculum. Special education units are occasionally sited in the grounds of secondary schools, with considerable variation in the extent to which inclusive education occurs.

Among the 1.3% or so of children placed by LEAs outside the ordinary school system, the vast majority are educated in day special schools run by the LEAs themselves. They are usually much smaller than ordinary schools and have higher staff/pupil ratios. Demographic changes and the development of inclusive education programmes have caused numbers in these schools to decline and some have been either closed down or amalgamated with other types of special school. There are various types of special school. Many are designated as being for children with moderate learning difficulties and other recognised groups include emotional and behaviour difficulties, severe learning difficulties, hearing impairment, visual impairment and physical disability.

In a small proportion of the cases in which a child with a statement of special educational needs requires special schooling, the LEA cannot make appropriate provision in one of its own schools. In such cases it may pay for the child's placement, often on a residential basis, in a school run by a voluntary body such as the National Autistic Society or in an independent school approved by the government's Secretary of State for Education as providing suitable special education. Alternatively, the LEA may place the child in a school run by another LEA or, with government consent, in an establishment run by a District Health Authority or a Local Authority Social Services Department.

The LEAs have a duty to arrange suitable full-time or part-time education for children who are out of school, for example because of illness or of exclusion on the grounds of difficult behaviour. Establishments specially organised to provide education for those with emotional or behavioural difficulties are known as pupil referral units. Occasionally children with special needs are educated at home, with the LEA providing a home tuition service, usually on a part-time basis.

Policy

Government policy favouring inclusive education is reflected in Parliament's acceptance of the Warnock Report (Department of Education and Science, 1978) and in subsequent legislation, notably in the Education Act of 1981 and in that of 1993. Under Section 160 of the 1993 Education Act, for example, LEAs have a duty, subject to certain qualifications, to secure that children with special educational needs should be educated in an ordinary school.

The 1993 Education Act also held governors of ordinary schools responsible for ensuring that as far as possible children with special educational needs take part in the normal activities of the school. The act also required governors to name a "responsible person", often a governor or the head teacher, and to ensure that this person makes children's statements of special needs known to all those who teach them. Governors also have a duty to ensure, as far as possible, that their school provision meets any special educational needs of children without formal statements.

Since the visits, the government has issued a consultation paper on special educational needs (Department for Education and Employment, 1997), recommending that more children with special educational needs be educated in mainstream schools, that the use of special schools be increasingly for short-term placements, that the bureaucracy involved in statementing processes be cut, so that the proportion of children with statements nationally be reduced towards 2%, that training for teachers in meeting special educational needs be improved, and that parents be properly involved in decision-making.

Legislation

The LEAs have responsibility for the pre-school education and schooling of children and young people with statements of special educational needs of any age up to 19 years, whereas for other children their responsibilities fall only within the five to 16-year age range. Current legal requirements concerning provision for children with special educational needs stem from the Education Act 1981, which placed a duty on LEAs to identify these children, assess their needs on a multidisciplinary basis, and where necessary compile formal statements of these needs, specify appropriate provision, and make the necessary arrangements. The whole process, from the LEA's proposing to make a statement to the issuing of a final statement, should take no longer than six months.

In each case placement has to be compatible with the child's special needs, the wishes of the parents, the efficient education of children already at the school, and the efficient use of LEA resources. Statements have to be reviewed on an annual basis. The first annual review after the child's 14th birthday, and any subsequent annual reviews until the child leaves school, should include a Transition Plan, which will draw together information to plan for the child's transition to adult life.

The 1988 Education Act, which established the National Curriculum, confirmed the entitlement of all children, including those with special educational needs, to a balanced, broadly based and relevant curriculum. Within this, there is the possibility that through the statement procedures children can follow a modified National Curriculum or be exempted from some or all of it.

The 1993 Education Act endorsed already established national policy favouring inclusive education, by requiring LEAs, wherever practicable, to educate children with special educational needs in mainstream schools alongside children without special needs, rather than in segregated units or special schools. The district health authorities are under some obligation, if asked, to help the LEAs exercise their duties, for example by providing speech therapy services. The 1995 Disability Discrimination Act emphasised the rights of people with disabilities generally to as normal a life as possible.

Developments specified in the 1993 Education Act included the establishment of a tribunal to hear appeals against an LEA for its either issuing or failing to issue a statement, an obligation on the LEA to consider parents' stated preferences in relation to choice of school, and a requirement on the Secretary of State to issue further guidance to LEAs and schools concerning their responsibilities towards children with special educational needs.

The accountability of school governors to parents was increased by regulations (Department for Education, 1994*b*) requiring them to ensure that suitable procedures are established in their schools for identifying and helping children with special educational needs, and to publish information about the school's policy for special educational needs and its implementation. Governors, heads and teachers also have a duty to have regard to the provisions of the Code of Practice (*op. cit*), described below.

Guidance

Guidance referred to in the 1993 Education Act was presented in Circular 6/94 (Department for Education, 1994*a*) and in the associated Code of Practice (Department for Education, 1994*c*). The Code of Practice recommended that ordinary schools follow a five stage pattern of identification and assessment of special educational needs. If the initial expression of concern has not been by the child's parents, the parents should be consulted during the first stage. During the second stage the school's co-ordinator for special educational needs is involved in preparing an individual education plan, in setting targets and in reviewing progress. At the third stage, if this proves necessary, the teachers and the co-ordinator for special educational needs are supported by specialists from outside the school. At the fourth stage the LEA considers the need for a statutory multi-professional assessment and in the fifth stage, if the formal statement recommends a change in provision, arranges it.

Funding

Government policy, as declared in Circular 7/91 (Department of Education and Science, 1991), favours local management of schools, with the schools in large measure taking responsibility for handling the funding allocated to them, doing this in accordance with their own priorities. Whereas most of the funding allocated by the government to each LEA for the education of children in schools is in accordance with the number of children in the LEA at each age level, there is in addition an allowance to meet the LEA's "additional educational need", and this is based on the government's estimate of the prevalence of social deprivation in that LEA.

The LEA then allocates funds to its schools in accordance with its own formula, which has to be approved by the government, and which must include an element to account for the additional cost of educating children with special educational needs. While many LEAs distribute money for meeting special needs to ordinary schools simply on the basis of the number of children in each school qualifying for free school meals, some LEAs are adopting a direct and more accurate approach by using measures of educational performance, and the government encourages them to do this.

Some of the funding allocated to the LEAs, however, is not distributed to schools as part of this allocation. A proportion is held back to meet the LEA's estimated further additional cost of educating children with statements, and is allocated accordingly to the school concerned.

Training

Four year Bachelor of Education (BEd) and one year Postgraduate Certificate in Education (PGCE) courses are required to provide student teachers with basic knowledge and skills in the field of special educational needs, sufficient for them to identify and provide for children with special needs, including those with specific learning difficulties. Teachers of children with sensory impairments must hold additional specialist qualifications.

Teacher training institutions offer advanced training, usually on a part-time basis, to qualified and experienced teachers who wish to specialise in special educational needs and who are usually already working in this field. Such in-service education and training can lead to postgraduate qualifications, generally at Master of Education (MEd) degree level, but they are often offered in modular form, thus enabling teachers to gain accreditation at more modest levels should they so choose.

LEA advisory and inspectorial services often collaborate with the teacher training institutions to produce combined offerings. The DFE administered a Grants for Education Support and Training programme, which enabled LEAs to bid for funding to pay for designated areas of training and which included money earmarked for in-service education and training in special educational needs.

The teaching of children with special educational needs is often supported through the work of special needs assistants, who do not need to have qualified teacher status. These assistants may choose to improve their skills by undertaking in-service education and training leading to a recognised certificate.

Support services

Each school run by an LEA must have a member of staff named as being responsible for co-ordinating the day to day provision of education for children with special educational needs. This co-ordinator contributes to the formulation and maintenance of the whole school policy for special educational needs, and in consultation with class teachers undertakes and/or supervises any in-class or withdrawal group support for children with special educational needs. The co-ordinator for special educational needs also offers advice to other members of staff, may run in-service education and training for them, sometimes drawing on the expertise of members of external support services, and may be instrumental in the development of special teaching materials. The co-ordinator for special educational needs is also likely to liaise with members of external support services in relation to the education and more general welfare of particular children with special educational needs.

In the larger secondary schools the co-ordinator for special educational needs is likely to be head of a department for special needs, the staffing of which may well include teachers assigned on a part-time basis to support the education of particular individuals with formal statements. Children with special educational needs also have access to the counselling facilities run by the school for children more generally. Children with special educational needs in ordinary schools and their staff are sometimes supported by teachers based in special schools and working on an outreach basis, usually as part of LEA inclusive education programmes.

Support services external to the schools but run by the LEAs include special education advisory services, educational psychology services and education social work services. Each of these services is likely to have staff who are each assigned to a geographical cluster of primary, secondary and special schools; each is likely to be co-ordinated at LEA level, and in larger LEAs at area level also, by a senior member of the profession.

Staff of the special education advisory services may provide teaching support, advice and in-service education and training. Educational psychologists may also provide advice and in-service education and training, but are likely to be involved mainly in assessment contributing to formal statementing processes. Education social workers may work with any families in which children are disadvantaged, particularly where there are school attendance problems, and only a proportion of children with special educational needs fall into this category. The extent to which these services are staffed varies significantly across the country; in general, teachers have less access to them than they would wish.

Support service professionals who are employed by organisations other than LEAs and who visit schools on occasion include local authority social workers, physiotherapists, school medical officers, and speech therapists. Most are concerned with children generally rather than just with those with special educational needs, though some specialise in work with the latter. As with LEA support services, the extent to which teachers have access to them is variable and is often, particularly with regard to speech therapists, thought insufficient.

In accordance with the government's policy promoting local management of schools, it encouraged LEAs to delegate sufficient funds to schools to enable them to buy support services from wherever they wish: *e.g.* from the LEAs, from other public services, from business organisations, from individual consultants. The LEAs were, however, empowered by the 1993 Education Act to provide their own special education support services, making reasonable charges to schools for these services if they choose to do so. This ensured that the LEAs were able to meet their obligations with respect to children with statements.

Parental and community involvement

Government documentation (Department for Education, 1994*d*) outlined for parents of children with special educational needs their rights and responsibilities. The emphasis was very much on parents as partners in the education process. In accordance with the amended 1944 Education Act, the parents of every child between the ages of 5 and 16 had a duty to cause that child to receive efficient full-time education in accordance with the child's age, aptitude and ability. If they fail to do so, the LEA may seek an attendance order.

Where an LEA decided to assess a child's special needs with a view to producing a formal statement, the 1993 Education Act gave parents the right to be informed of this, to be present during assessment procedures, to receive copies of reports, to have help from a named officer of the LEA, and to appeal against any recommended provision with which they disagree. Appeals were dealt with by the special educational needs tribunal. Parents could themselves request formal assessment and the LEA was obliged to comply unless it judged the request to be unreasonable; again, parents could appeal against this decision.

Many primary schools, some special schools and a few secondary schools have parents and other members of the community coming in and helping on a voluntary basis, listening to children reading for example. Such help often focuses on children with learning difficulties. Some schools run paired reading schemes, whereby help at school and help at home are formally co-ordinated. Parents sit on the governing bodies of schools, each of which includes a person representing the interests of children with special needs.

Most schools have parent-teacher associations, fund-raising is often one of their main tasks and schools in relatively affluent areas can be helped considerably by this. Special schools, through the public sympathy they generate, can be particularly effective at fund-raising, and in this they are often helped by local branches of voluntary bodies concerned with disabilities. Several voluntary bodies run their own special schools and in doing so receive financial support from the government as well as fees from LEAs placing children with statements there.

Curriculum development

Although the 1988 Education Act allowed for the possibility that the National Curriculum requirements may be modified or negated with regard to children with special educational needs, in practice such adaptation is rare. Almost all children with special educational needs, including most of those in special schools, follow the National Curriculum in full, albeit often at levels lower than those achieved by children of the same age but without special needs. At secondary level, some are exempted from taking a modern foreign language. In schools for children with severe learning difficulties, some follow programmes which are simpler than those specified at the lowest level of the National Curriculum but which lead into it.

Evaluation

Within LEA schools, most children's progress can be assessed in terms of the rates at which they have reached the successive levels of the National Curriculum and its associated attainment targets (ATs), and eventually in terms of the grades they achieve in external examinations such as those for the General Certificate of Secondary Education (GCSE) and, for some, the General Certificate of Education (GCE) at Advanced Level. Many of these measures can be interpreted in relation to those with special educational needs, as long as they are considered in the context of their known abilities.

It is common for schools to assess the achievements of children with special educational needs periodically, generally by using either norm referenced or criterion referenced tests of literacy skills, often accompanied by tests of numeracy. Assessment for statementing purposes almost invariably involves detailed testing of ability and of achievement in basic subjects, and its results can be used by teachers as a baseline against which to judge later progress.

Cumulatively, achievement levels in the National Curriculum and external examinations should provide a basis for judging changes in standards nationally and the government promotes publication of results in order to increase the public accountability of schools and to enhance parents' opportunities to choose schools suitable for their children.

From 1993 the Office for Standards in Education (OFSTED) has been engaged in a programme which seeks to inspect each maintained secondary school in England once every four years, with consequent published reports identifying the action needed to improve standards. Subsequently the inspection programme was extended to include primary schools and special schools. The programme is implemented with strict reference to a standard framework (OFSTED, 1994), introduced in 1993, revised in 1994 and subject to further revision for 1996.

Further developments

Over the next few years the implementing and the monitoring of the Code of Practice should promote more inclusive education for children with disabilities. If it succeeds in securing their earlier and more precise identification, and consequently more effective education for them in ordinary schools, it may also result in the need for fewer statements.

Implementation of the government's policy for local management of schools increased schools' responsibilities and their accountability. While many LEAs used only crude indices as bases for the funding they delegated to individual schools to allow for the extra costs of educating children with special needs, some developed more precise methods of assessment.

B. Local arrangements

Prevalence

In the LEA studied, partly as a result of LEA policy and partly due to demographic factors, the number of children in special schools declined progressively during the 1980s and early 1990s, but over the past three years appears to have reached a steady state. Four percent of the total school population have statements, a much higher percentage than that applying nationally. Among this 4%, almost 2.5% of the total school population are in ordinary schools run by the LEA. As is the case nationally, just over 1% attend LEA special schools. The remainder are mostly either educated outside the school system or placed in schools run independently or by voluntary bodies.

Provision

In implementing its inclusive education policy, the LEA allocates extra resources to some of its ordinary schools, designated as enhanced resource schools, to enable them to provide for a higher proportion of children with special educational needs than do other ordinary schools. At the time of the visits there were 19 enhanced resource schools, four of them at secondary level, with a further three in the process of being established.

The LEA schools not designated as enhanced resource schools do have some children with special educational needs attending, as do the grant maintained schools, which at secondary level constitute more than a quarter of the maintained schools within the LEA's geographical boundaries. The enhanced resource schools are under some pressure to take on children with more severe emotional and behavioural difficulties, as some of the other schools are reluctant to persevere with these children and the number they exclude is rising.

For the minority of children with special educational needs who are not integrated within ordinary schools, the LEA runs day and residential special schools. There are schools for children with moderate learning difficulties, schools for children with severe learning difficulties and schools for children with emotional and behavioural difficulties. A few children are placed residentially outside the LEA and a few receive part-time home tuition in lieu of schooling.

Policy

For 15 years or more the LEA has vigorously maintained an integration policy. This has been within the context of a philosophy of providing a public service that ensures some basic protection for the socially and economically disadvantaged. Following extensive discussions initiated during 1991 and 1992 by a working group consisting of elected members and trade union representatives, the LEA issued an 80 page consultation document which reaffirmed the LEA's integration policy and set out proposals for change.

As part of its preparation, the working group had sent a questionnaire to all LEA schools and had considered the results of a recent comparative study of teachers' attitudes across several LEAs. The 90% response to the questionnaire indicated that many teachers felt that they did not have the expertise to deal with special educational needs and that they needed additional staffing and advice if they were to do this properly. The working group recognised the need for in-service education and the training that this implied.

The comparative study had indicated that most teachers in the LEA saw the LEA's policy of integration with in-class support as the chief strength in its approach to special educational needs, and that considerably more teachers in this LEA than in other LEAs surveyed appeared to be sympathetic to integration. Unlike the LEA's own questionnaire responses, the survey's replies had indicated that teachers in this LEA were confident that they had some or all of the skills required to meet special educational needs. Perhaps this illustrates differences between being asked hypothetical questions and being asked questions where the responses may lead more directly to action.

The concept of the enhanced resource school was introduced and ordinary schools were invited to apply for enhanced resource status. Eleven of the LEA schools, three of them secondary schools, already had enhanced resource status in the sense that they had special teaching facilities on their premises. The LEA increased the extent of inclusive education in these schools and in the other eight schools eventually joining the scheme.

In implementing policy, the LEA liaises with neighbouring LEAs, for example through regular meetings of a regional advisory committee for special education. There are similar links with the district health authorities serving the area and with the local authority's Social Services Department. In responding to the questionnaire referred to above, schools had reported the support offered by the education and health authorities as being highly valued and of critical importance in assisting schools to meet individual children's special educational needs.

Legislation

There is no relevant legislation other than the national legislation already referred to.

Guidance

In 1994 the LEA issued to all its maintained schools a guidance manual on developing and maintaining a recording system in relation to children with special educational needs. The recommended system is closely based on the Code of Practice (Department for Education, 1994*c*) and provides a vehicle for implementation of the code's five stages. It was prepared by staff of the LEA's educational psychology, special needs moderation, and advisory and inspection services. While its information is of relevance to teachers and school governors generally, the co-ordinators for special educational needs in the ordinary schools constitute its prime target audience. In keeping with the LEA's inclusive education policy, the document stresses the fact that the majority of children with special educational needs have their needs met within the first two stages of the code.

Funding

The average cost per child in the LEA's special schools varies with age, type of need and size of school. For children with moderate learning difficulties, for example, a total expressed cost of about USD 8 593 (GBP 5 800) per child per year would be typical. Given the fact that some of the costs of running an established special school are fixed, the marginal annual cost of adding an individual child to an existing special school would be about USD 5 630 (GBP 3 800).

If all these children were to be provided for in an ordinary school with enhanced resources, while the marginal annual cost of adding each child would rise to about USD 6 963 (GBP 4 700), the total annual cost per child would only be about USD 7 259 (GBP 4 900). This is because a high proportion of the fixed costs of running the ordinary school is accounted for by the children who do not have special needs and who form the vast majority of the ordinary school population.

Sudden wholesale transfer of this kind, however, is likely to be neither desirable nor feasible, and in any integration programme there is almost inevitably a phase during which numbers of children with disabilities in special schools decline as those in ordinary schools increase. During this phase, the authority concerned has to bear both the fixed costs of the special schools and the marginal costs of integration.

In this particular LEA, although the number of children placed in special schools has reduced over the years, with the consequent closing of some special schools, over the same period there has also been an increase in the total number of children with statements. Consequently, the implementation of the LEA's integration policy has not proved to be a cost saving measure. Reasons for this increase are not altogether clear. It may be the case more generally, however, that the increased presence of children with statements in an ordinary school leads teachers to press for statements to be issued also with respect to other children with similar learning difficulties in the same school.

The LEA's primary support teaching service, constituting more than 100 peripatetic teachers, has been based mainly in special schools and in ordinary schools with special teaching facilities, with some 14 bases altogether. It is possible that location in special schools may have encouraged some teachers to recourse to advocating special school placements more readily than might have otherwise been the case.

As far as children with statements more generally are concerned, a decade ago the LEA was estimating that at secondary level the average statement entailed an extra allocation amounting to the cost of a tenth of a teacher. As numbers with statements have increased the allocation per child has been reduced in successive years and currently is allowed for at an average of USD2 519 (GBP 1 700), about a fifteenth of the cost of a teacher, with a further slight reduction planned for the following year. Over the years the LEA has been moving progressively towards a unified system of funding for placements of equivalent children in ordinary schools and special schools.

While much of the budget for teaching children with special educational needs is delegated to the schools, the LEA retains a small amount which it can use to supplement delegated funds if it transpires that particular children require higher expenditure than that foreseen.

Overall levels of expenditure per child are far lower than those involved if the LEA pays for such children to be educated in independent schools approved for the purposes of special education, particularly if they are placed there on a residential basis.

One of the problems of providing extra funding to meet the assessed special needs of individuals is the fact that the funding is potentially unlimited, and the increases in the percentage of children with statements over the years have presented continuing difficulties for education officers having to work within finite budgets. To prevent the process of allocation of funds to special schools and enhanced resource schools from being unduly time-consuming, and therefore a drain on resources, the LEA has agreed a moderation activity with schools. The heads and officers engaged in this moderation activity consider a sample of children in each school and use this as their basis for allocation.

The LEA provides additional funds annually to ordinary schools to allow for the extra costs of educating children who have special educational needs but not at a level of severity sufficient to warrant multi-professional assessment with a view to statementing. In primary schools the allocation of USD 76.60 (GBP 51.70) has been made on the basis of assessment of reading ability for each child with a reading quotient below 85 but the reading quotient is being replaced by an index, referred to as the Curriculum Enhancement Index, based on the attainment targets reached in the National Curriculum of USD 33.6 (GBP 22.68) for each child with a curriculum enhancement index below a specified level. In secondary schools, the allocation is made on the basis of the number of children eligible for free school meals at USD 352.20 (GBP 237 945) per child.

The actual costs of educating children with statements are now much more difficult to estimate, as statements now tend to be written in terms of curriculum objectives rather than in terms of resources needed. This is partly a result of the government's introduction of the National Curriculum and may well be a national rather than a regional phenomenon.

Training

The LEA's advisory and inspection service runs an induction programme for newly qualified teachers. Indications are that some three quarters of newly qualified teachers have only limited awareness of special educational needs.

In 1994 staff of the LEA's moderation service for special educational needs and the advisory and inspection service produced a training pack on whole school policies for special educational needs. The pack includes notes for the trainers, overhead projection transparencies, task sheets and information handouts. The pack was designed to be used in training funded nationally through the grants for education support and training programme to enable schools to develop and publicise their policies for special educational needs in accordance with regulations issued by the Department for Education (1994*b*).

As these regulations place the responsibilities for developing and publicising school policies for special educational needs with the governors of the schools, staff of the LEA's advisory and inspection service have prepared an introductory information pack on special educational needs for use in the 1994-95 governor training programme. The pack includes an account of the development of ideas and legislation in England concerning integration, running from the egalitarian movement in the 1960s, with its shift from selective to comprehensive schools, through the Warnock Report and the Education Act 1981, to the 1993 Education Act and the Code of Practice.

The LEA's guidance manual on developing and maintaining a recording system has been referred to in an earlier section. Allied to this is a training pack, also prepared by staff of the LEA's advisory and inspection service, designed to be used on one day courses during 1994-95, in the identification and assessment of special educational needs. As with the guidance manual, the training pack focuses on the implementation of the Code of Practice. It includes descriptions of pre-course activities, notes for trainers, overhead projection transparencies, task sheets and information handouts, and is differentiated to some extent to make it suitable both for staff in primary schools and staff in secondary schools.

Support services

Staff of support services external to the schools and maintained by the LEA include support teachers for primary schools, educational psychologists, education social workers, advisory teachers concerned with particular disabilities, special needs moderators, special education advisers and special education officers. People other than LEA employees providing support services to the schools include physiotherapists, school medical officers, speech therapists and social workers.

The boundaries of the district health authorities in the region differ from those of the LEAs. Different parts of the LEA under consideration are serviced by three different district health authorities, and inevitably this leads to complexities and uncertainties in the relationships between education and health services. The district health authorities generally are characterised by a purchaser-provider structure in which the district health authority's consultant in public health medicine concerned with child health takes responsibility for assessing the needs for public health services in the area and then purchasing the services needed. Potential providers make bids, and those chosen contract to provide specified services, with the District Health Authority setting targets and measuring outcomes.

In the area in which the study's exemplar school is situated, public health provision is divided between two trusts, one concerned with acute illness and the other concerned with community services, the latter usually being the one with which the school is concerned. While practice varies across the area to some extent, the general pattern includes involving every child in a general health screening on or shortly after reaching statutory school age.

This screening is undertaken in school by the school medical officer and serves, for example, to make sure that every child has been immunised at least by the end of the first year in elementary school. In fact, most have been immunised well before school entry. Eyesight, hearing and any medication are also checked and teachers are informed of any characteristics requiring their attention.

After the first screening, medical examinations are conducted on request, with teachers often taking the initiative. A selective screening occurs during the school year in which children reach the age of 15, with up to a third or so of children of that age group being included in some areas, and here health factors relevant to later employment or post-compulsory education are considered. Children assessed with a view to statementing are examined as part of the assessment and if they do receive statements their medical condition is reviewed annually. This occurs irrespective of whether they are placed in ordinary schools or special schools.

The community health service trust also arranges physiotherapy for pupils in schools, and in the area in which the school is situated staffing includes a person with a specific brief for perceptuo-motor difficulties. Priority tends to be given to children of pre-school age. As children with statements in ordinary schools in this LEA usually have the support of education care officers, the physiotherapist can explain the programme needed to the education care officer, who can then carry it out. This is not the case in all LEAs.

The geographical boundary of the Social Services Department is the same as that for the LEA, as both are branches of the same Local Authority. In the area within which the exemplar school is situated, the Social Services Department has established a liaison group. Informal meetings are convened on a monthly basis by the area social worker and staff of education, health, housing, National Society for Prevention of Cruelty to Children (NSPCC), police, probation and social work agencies are invited.

Documentation supplied by the Social Services Department indicates that in recent years its level of priority accorded to children with disabilities has been relatively low. However, some steps have been taken to redress the balance. For example, a member of staff has been designated to monitor arrangements for assessing the possible requirements of young people with disabilities for social services provision as adults, a register of children with disabilities is being established, and information about services for disabled children and their families is being prepared for publication.

Social workers may be involved in arranging respite care for parents of children with disabilities. This is usually on a short term basis, to provide holiday breaks for example, but it sometimes entails residential schooling outside the local authority. Because of the high costs of residential schooling, both the LEA and the Social Services Department are cutting back on this kind of provision. When children are excluded temporarily from school, social workers may be involved in the negotiations needed to get them back.

Parental and community involvement

The LEA's policy statement on special educational provision encourages parents who think their children have special educational needs which have not been identified to contact the heads of their children's schools or, alternatively, to make direct contact with staff of the educational psychology service or the education department offices. In referring to the assessment of special needs, the document states that the views expressed by the parents and the child are given full weight at all stages. When a child has a statement, the parents are invited to the annual reviews of progress and if a change in provision is contemplated they are involved in the revision of the statement.

Curriculum development

When the National Curriculum was introduced, the LEA issued guidance on its implementation, including particular reference to meeting special educational needs. The documentation is currently being revised.

Evaluation

The LEA's system of evaluation, as described in its policy document, includes a programme of annual inspection of schools, support for schools' self-review programmes, the collection and analysis of statistical information, and routine monitoring through programmed visits by advisers.

Within the inspection programme, for example, each special school inspection follows a modified OFSTED model, using two advisers for two days, inspecting at least two of the core subjects, and spending about three quarters of the time observing in classrooms. Findings so far have been very much in line with those identified nationally in the annual report of Her Majesty's Chief Inspector for schools. They include some weaknesses in class management, insufficient use of detailed assessment, a lack of differentiation and deficiencies in curriculum planning. Evidence of provision for special educational needs in ordinary schools specially resourced for this purpose indicates a more positive picture.

The progress of individual children with statements is monitored by a team of 11 special needs moderators, who also check whether statements are being complied with and whether the LEA's resources are being used efficiently. In addition, they advise during the early stages of identification and assessment of children with special educational needs. Children with statements are reviewed annually by those working with them.

In the LEA's estimation the key factors facilitating the development of more inclusive schools have been a long-standing tradition of generally positive attitudes among teachers and community members towards inclusive education, enhancement of this through the LEA's inclusive education policy and its strong promulgation, the completion of a relatively high proportion of statements and their having the allocation of extra resources tied to them, the tendency in schools to take money allocated to compensate for social deprivation and use it mainly for the benefit of children with special educational needs, and the LEA's spending a relatively high proportion of its in-service education and training money on training for work with special educational needs.

The view was expressed that support among the educational community for inclusive education, though still strong, has lost a certain amount of ground in the last two or three years. This is thought to be due mainly to the government's emphasis on examination results as indicators of the effectiveness of schools, doubts expressed at government level about the value of mixed ability teaching, and a recent trend towards larger classes. Recent and forthcoming reductions in the overall funding available to the LEA are thought to be having disproportionately larger adverse effects on provision to meet special educational needs in ordinary schools, as this relies significantly on part-time staff and part-time staff are often the first to go if staffing cuts become necessary.

Further developments

One problem for the LEA will be how to pursue its integration policy without inordinate increase in costs. Translated into practice, this may become the problem of how to manage a scaling down of special school places to parallel its planned increase in provision for children with special educational needs in inclusive schools.

Another problem will be how to increase the number of enhanced resource schools, given a climate in which schools may choose to recruit children who perform well academically and do not have emotional or behavioural difficulties.

A further problem, whether or not integration increases, will be how to ensure that the LEA's teachers are to continue to develop the knowledge and skills necessary for the effective teaching of children with special educational needs. Resourcing these developments in budgetary neutral times will represent a significant challenge.

C. The school visited

Basic information

The exemplar school is a secondary comprehensive day school for boys and girls aged 11 to 18, maintained by the LEA and designated an enhanced resource school. It is situated in a small town. The surrounding area is largely rural, though there is the edge of a large conurbation only a few miles away. The area includes a mixture of private and local authority housing. Almost all the school's pupils and students live within this area and few from this area attend other LEA schools. This is partly because the hilly nature of the surrounding countryside presents difficulties for extensive daily travel. Some 12% of the school age population of the area, approximately one and a half times that pertaining nationally, attend independent schools.

The parents of the children attending are almost all of white English origin and include the full range of socio-economic groupings. Some 10% are in circumstances of social deprivation to the extent that their children are eligible for free school meals; nationally, some 18% of families with secondary school children fall into this category.

The school's admission policy is to accept all who apply except for some who have been assessed as having severe learning difficulties. Having been granted extra resources by the LEA to provide special education, the school does accept children who otherwise might have been placed in schools for children with moderate learning difficulties. It is also servicing the running down of a nearby school for children with emotional and behavioural difficulties, gradually taking on more of those who would otherwise have gone there.

By national standards the school is large, with 1 740 on roll. There are 43 boys and 12 girls with statements (3% of the school population): mostly children with significant learning difficulties, some with emotional and behavioural difficulties and some with sensory or motor disabilities. Attendance rates in the school as a whole are high, running at over 90% throughout the age range. There have been three fixed period exclusions and two permanent exclusions over the 1993-94 school year.

The school is staffed by 116 teachers, mostly employed on a full time basis, adding up to a full time equivalent (FTE) of 110, with an overall pupil to teacher ratio of 16 to 1. Class sizes average 26 in the lower school (for pupils aged 11 to 14) and 23 in the upper school (for students aged 14 to 18). The work with children with special educational needs is managed by the school's learning support team, consisting of 12 teachers, some of whom are employed on a part time basis, and amounting to a FTE of 8.2. They are supported by six people (5 FTE) who are not qualified as teachers and who are designated as education care officers; five of them are assigned specifically to children with statements.

Visiting members of the LEA's support services include an educational psychologist who spends about 60 hours a year in the school, with most of this time spread across twice termly visits devoted mainly to discussions with year heads concerning the progress of children with special needs. The educational social worker visits twice a week, often in connection with children who have attendance problems; few of the children with statements fall into this category. Visits related to children with statements include attendance at some of the annual review meetings. Staff of the LEA's advisory and inspection service visit on request, with some of the visits being by people specialising in sensory or motor disabilities, their total time in the school being estimated as adding up to about 12 hours a year.

Some of the external support for the school is provided by the community services trust which undertakes work specified by the District Health Authority. Most of this is concerned with children with special educational needs, much of it with those who have statements. The amount of time spent per year in the school by different public health service professionals is estimated by the school to be about

10 hours for the school medical officer, 20 hours by the physiotherapist, 60 hours by the speech therapist and five hours by the orthoptician. Within the local authority's Social Services Department a certain amount of social workers' time is spent on behalf of children with special educational needs but very little of this is in school and contacts with teachers are reported to be minimal.

Total involvement of external support staff in special educational needs aspects of the work of the school, even allowing for travelling time, is likely to add up to less than 0.5 FTE.

The school had an OFSTED inspection at the beginning of the 1994-95 academic year, and its outcome was one of the reasons for the school's selection for present purposes. The OFSTED report judged the school to be providing good value for money, characterised by high quality leadership and positive relationships, and earning strong support from parents and governing body. Children's academic standards were assessed to be commensurate with age and ability.

Arrangements for children with special educational needs were considered in the OFSTED report to constitute one of the school's major achievements, with staff specialising in this field providing exceptionally good support for children and for colleagues. The school's relative weaknesses were thought to lie in limited availability of resources for information technology, in lack of opportunity for children to display initiative, and in teachers' insufficiently high expectations of the work of the younger children.

Funding

Whereas the posts of head of faculty and curriculum co-ordinator are part of the core staffing of the school, the other teachers in the faculty of learning support are paid for through the school's enhanced resourcing for special educational needs. Most of the education care officers are employed specifically in relation to individual children with statements and the LEA pays the school for their services from its budget for meeting the costs of provision specified on statements. In salary terms the cost of an education care officer is about half that of a teacher.

One of the difficulties experienced by school staff is not knowing from one year to the next how much funding they will receive for individuals with statements, as the number varies from one year to the next and as the basis for funding is renewed annually. Because of recent staffing cuts in the faculty, in-class support tends now to be only in groups in which there is a child with a statement, whereas previously it extended to children with special educational needs more generally. Another difficulty inherent in the system of providing funding according to level of disability is the disincentive of the school's losing money if children progress sufficiently to enter a higher but less well resourced ability band.

In a later subsidiary study of costs, Beecham and Knapp (1996) estimated that average cost per pupil per annum for all pupils in the school was USD 3 259 (GBP 2 200), the average for the school's pupils with special needs was USD 8 148 (GBP 5 500), and the average for pupils in the special school visited (see Annex 3) was USD 7 259 (GBP 4 900).

Quality of work

Most of the 27 lessons observed proceeded in an orderly manner and were characterised by good rapport between teachers and children, with effective use of humour to dissipate incipient tension. It was clear that careful planning had been a major factor in producing the smooth classroom organisation characteristic of such lessons. Co-operative planning was a feature of the work of the learning support team and of the subject faculty teams, and planning at an individual level characterised teachers' lesson preparation. The resulting lessons provided an excellent framework within which children with special educational needs could settle down to their work and make optimum use of support teaching in those lessons in which it was provided.

Many of the children, including those with special needs, contributed orally. Teachers and children listened to what each other had to say and the views of those with special needs were treated as seriously as were those of anyone else. It was noticeable that when support teachers were present children with statements would sometimes try their responses out on them before being encouraged to speak to the class more generally.

Preparation for some lessons was so complete that had there been no need for class management the lessons could have proceeded without a teacher present. This was particularly the case in humanities and in science, where staff had worked hard to break the syllabus down into modules and write up each module in booklet form. In science, the duplicated booklets included basic information, supplied the instructions the children needed to carry out experiments, provided a framework for their reporting of results, and set homework to test their understanding of the principles introduced. Given this level of preparation, teachers needed only the first few minutes of the lesson to start the children working and could then spend the rest of the time going round helping where necessary.

Many lessons featured the use of additional materials designed to enable the less able children to successfully complete tasks, and the class teachers had made themselves thoroughly familiar with materials supplied to them. In modern foreign language lessons, worksheets were modified so that children with learning difficulties could respond by writing in single words or phrases rather than by constructing sentences. In a geography lesson, children with statements speaking in a formal debate had been helped by more able classmates who had scripted their contributions. In science, tasks relating to a particular topic were presented at three levels of difficulty, with one of the easier tasks programmed on to a computer so that it could be completed without help from the teacher.

In-class support, whether by a support teacher or an education care officer, was seen to be effective. In one science lesson observed it was so effective that the children with statements were completing the set experimental tasks at a faster rate than were their more able classmates. The main reason for this seemed to be that the children with statements were kept hard at work all the time, whereas the others tended to adopt a more leisurely approach, resting and chatting in between phases of on-task activity.

Whereas differentiation in many of the lessons seen was mainly by level of difficulty, by pace or by quality of outcome, in some cases it was through choice of content. This was particularly apparent in a geography lesson in which the class of children aged 14/15+ were carrying out some work on multi-national companies. The support teacher was able to harness the motivation of two boys with statements who happened to have a particularly strong interest in cars by setting them off on a project focusing on a multi-national motor company.

Overall, it was clear from those lessons observed that the development of teaching materials and their adaptation to meet the needs of the less able constituted a key factor in enhancing inclusive education. Production of these resource banks had required a great deal of time and expertise and was an ongoing feature of the school's work, with continuing updating needed as the syllabi of different subjects changed. This work also provided a valuable vehicle for co-operation among staff and for in-service training in curriculum development. In this document, further references to this activity are made under the successive headings of accommodation, resources, staff development and curriculum.

Some of the lessons, while they proceeded steadily enough, could have presented more of a challenge for the most able. As the adaptation of materials for those with special educational needs approaches completion, some of the attention currently given to this could perhaps be diverted to the further development of materials designed to extend the high achievers.

Discussion among teachers included much constructive sharing of experience concerning the management of individual children, and expressed attitudes towards those presenting difficulties remained predominantly positive. Relationships between subject teachers and members of the learning support team appeared to be friendly, open and informal. There seemed to be few status differences between teachers and education care officers, who interacted as equals.

Judging from observation of class-work and from individual and group discussions undertaken with children with statements, customer satisfaction among these children is high. All appeared to be making good use of the learning opportunities and social facilities on offer.

In order to provide some sort of basis for comparison of work done in integrated and segregated settings, part of the second visit was spent in one of the LEA's day special schools for children with moderate learning difficulties. The curriculum on offer in the special school, though catering for its particular ability range and number on roll through an organisation rather different from that of the comprehensive school, was not dissimilar to that which some of the children there might have experienced had they not been segregated. At a rough guess, it would appear that at least half of the children in the special school would be able to manage quite well if they were able to attend an enhanced resource school of the kind discussed here. A description of the work seen in the special school is provided in the appendix.

Accommodation

The school was formed in 1990 as a result of the amalgamation of two secondary schools, the premises of one becoming the new lower school and the other the upper school. The fact that the lower school and upper school are some two miles apart adds significantly to the school's costs, in some cases because facilities are duplicated and in other cases because people have to travel between sites. Because of limitations in accommodation at the upper school site, students based there have to travel to the lower school site for some of their lessons.

The upstairs floor of the upper site is not accessible to students in wheelchairs. The fact that some of the classrooms at the upper site are small also presents problems for students with physical disabilities and for in-class support generally. Most classrooms, however, have ample space for two or more adults, for the children and for any practical activities in which they should be asked to engage.

The physical separation of lower school and upper school does have some advantages, both for children generally and for those with special educational needs in particular. Entrants to the school are unlikely to be overawed when the premises they start at caters mainly for only three age groups. There is a definite rite of passage from the lower to the upper school, and this helps the ethos of the upper school to be more grown up and responsible than it might have been otherwise. For those with special educational needs, the lower site offers some protection, whereas once they move to the upper site there can be an explicitly greater emphasis on social development and on the skills needed for independent living.

The learning support team have a workbase on each site. The workbases are used for team meetings, interviewing, small group work and storage of curriculum materials. On the lower school site the learning support team also have a community room, which serves various purposes. For one afternoon a week it houses an arts club for adults with disabilities. It is available to children over lunchtime, is greatly valued by them and is used extensively. It can be used by any children in the school, not just by those with statements, and can provide a safe haven for the more vulnerable. An equivalent facility exists on the upper school site.

Resources

In some subjects, notably in mathematics and in science, extensive resource banks have been built up for curriculum development relevant to special educational needs. During the previous year there had been a high level of emphasis on producing materials to support differentiation, and learning support team members had also been active in developing such resources in English, French, German, geography, history and religious education. Materials are duplicated and copies are held both in the learning support team workbases and in the relevant subject faculty bases. Photocopying of materials for teaching and learning takes up almost a third of the learning support team's budget for resources.

Even in subjects in which there has been extensive development of differentiated teaching materials, there is still a need for someone to design materials to meet the needs of particular individuals. As the subject teachers do not usually have the time and may not have the expertise to do this, for example if tasks have to be broken down into very small steps, it tends to be done by members of the learning support team.

The school has some computer software programmes designed for children with special educational needs, mainly in English and to some extent in mathematics and modern foreign languages. This is an area in need of further development across the curriculum, along with the purchase of computers capable of running software that is more generally compatible.

For children with reading difficulties, the learning support team have made sound recordings of readings from books and are building up a stock of tapes. In each workbase there is also a stock of reading books, colour-coded for reading difficulty, suitable for children of secondary school age and interests but with reading abilities at the primary level.

Staff development

The deputy head of each site is responsible for staff development on that site. The school is committed to ensuring that all staff have opportunities for in-service training, though the time and resources available for this training are limited. Teachers can apply for funding to attend training courses that fit in with the school's development plan. The school's current plan lists 16 priorities, including developing the assertive discipline system and implementing the new Code of Practice.

In the previous year members of the learning support team attended courses through which they studied specific learning difficulties, spelling, differentiation, the Code of Practice, and staff appraisal procedures. They also led an in-service education and training day for the whole school staff on differentiation in classroom teaching. To support this training the learning support team designed a booklet and distributed copies to all members of staff. The training involved participants in planning lessons for an identified mixed ability class and considered the various teaching methods and materials that might be employed. In the recent past staff of the learning support team have also run training for school governors on special educational needs.

Current priorities for the learning support team include studying the teaching of basic skills. Much of this training is being run by those members of the team who have particular expertise in this field, though use is also being made of the advice of staff of external support services.

Curriculum

The basic principle of the school, as stated in its staff handbook, is to offer to all the children on roll, regardless of age, gender, ability or background, a comparable range of opportunities. To this end it seeks to provide a curriculum displaying breadth, balance, relevance, differentiation, progression and continuity. Because of their emphasis on differentiation generally rather than just on programmes for children with special educational needs, the learning support team are able to play an influential part in curriculum development across the school.

The children with special educational needs, including those with statements, have full access to the subjects of the National Curriculum, although they tend to take only one modern foreign language rather than two, with German considered to be generally more suitable than French. Children taking only one foreign language are withdrawn from their classes during the two lessons weekly when the others take the second foreign language, and these are the only times when they are withdrawn from ordinary classwork. They use the time for extra work in basic subjects. In mathematics, the 13/14+ age group is set into classes of different levels of ability.

When children reach the 14/15+ age group they move to the upper school and follow the options for which they will be examined in the following year. Children with special educational needs, therefore, are able to drop some of the more academic subjects when they move to the upper school. Some take one option fewer than do the majority, and instead are timetabled for small group sessions in which they undertake individual work. As one of their options, some follow a lifeskills programme, run by learning support team staff to help the students prepare for their transition to further education or to work. The programme includes modules in basic literacy, basic numeracy, personal health and safety, sex education, and drugs awareness.

During their first year in the lower school, children who do not have statements but who experience some degree of reading difficulty are placed on a paired reading scheme, whereby they read out loud in unison with an adult helper and are gradually encouraged to read more independently as they gain in confidence and fluency. The scheme is organised by a member of the learning support team and is operated by a team of parent volunteers.

Management

Within the management of the school there is a high level of commitment to the education of children with special educational needs. The head has a strong personal belief in the value of inclusive education. So has the chairperson of the governors, who was first appointed some three years ago to represent special needs on the governing body and who still maintains this role. The head of the upper school was formerly a teacher in a special school. The learning support team constitute a faculty within the school, alongside the subject faculties. The learning support team handbook is a substantial document.

The school's managers actively promote a whole school policy for special educational needs, emphasising the view that responsibilities for educating these children lie with all staff and not just with the learning support team. This appears to be generally accepted across the school, though arriving at this position is said have required much effort over a period of years, with continuing effort needed for the position to be maintained. While the governors have strongly endorsed the school's role in providing for children with statements, the recently increased publicity given to schools' examination results has led a minority of members to question this role, saying that it will have a depressing effect on the school's performance in examinations.

The main message emanating from the management group over the years has not been simply that integration is in itself a good thing. It has been that teachers must differentiate the curriculum so that it benefits children of all abilities. The school reorganisation of 1990 provided a good opportunity for implementation of this policy to be strengthened by the appointment of faculty heads who were positively disposed towards differentiation.

The timetables of the learning support team allow them time for planning, consultation and assessment as well as for teaching. One of the learning support team has overall responsibility for curriculum development relevant to special educational needs. Each of the school's year groups of children has a learning support team member assigned to it and these team members have responsibilities for maintaining links with the teachers acting as the school's year co-ordinators.

Similarly, particular learning support team members have assigned responsibilities for particular subjects and they meet regularly with subject specialists to discuss children's progress.

An incidental advantage of the assignment of learning support team members to particular subjects becomes apparent if for some reason a subject teacher has to be away from the class for a lesson and leave a supply teacher in charge. In such a case the support teacher with responsibility for that subject knows the syllabus sufficiently well to be able to brief the supply teacher and perhaps share the teaching.

Organisation

Throughout the school, allocation of children to classes has for many years been based on mixed ability groupings. This avoids the stigmatisation and bad behaviour formerly associated with streaming but requires greater expertise in differentiation if it is to be successful. It probably helped in-class support to become accepted by subject teachers during its early stages of development.

Before the amalgamation of two schools into one, one of the former schools had on its premises the area's special teaching facility, whereby many of the children with statements were taught in a separate unit in special classes. During the early stages of integrating these children into ordinary classes, the special teaching facility staff would go out of their way to help out in any way they could, even if the help provided did not require a great amount of skill, as long as this enabled them to become accepted.

Now that integration is established and the special teaching facility staff have become learning support staff, they may help either individuals with statements or any members of the class experiencing difficulties, they may take the class while the subject teacher helps individuals, and they may share marking of work, writing of reports and talking with parents. The school's policy for learning support is to provide it in ordinary classes whenever possible. Only a small proportion of the support provided is on a withdrawal basis. In-class support, however, can require more teacher time than withdrawal group teaching. For example, while the teacher providing support in a class can only help children in that class, members of a withdrawal group can be drawn from several parallel classes.

At their point of entry to the school, great care is taken in the allocation of children with statements to classes. While all the classes are of mixed ability, tutors' skills in managing children with special educational needs vary and so do the capabilities of the other children. Only some of the tutor groups, groups with appropriately skilled tutors, are used for allocation of children with statements. As with other groups, these tutor groups include children who have enough maturity, tolerance and social skills to be able to deal constructively with the difficulties their disabled peers may present.

In timetabling, these "special" tutor groups are blocked together as far as possible, to enable support staff to move between classes and so help more children. The number of children with statements in any one such tutor group is generally limited to three.

The "caring" role can place quite a lot of responsibility on the children exercising it, and it may be wise on occasion to shift it periodically. For example, students in the 14/15+ age group had for many years been successful in helping a classmate who had suffered a head injury when they were all in primary school and who was left with very limited conversational and self help skills. As the students were growing up and pursuing their adolescent interests it was becoming more and more difficult for them to include the disabled student in their activities.

When they are in the 13/14+ age group, all the children have to decide which subject options they will take when they move to the upper school. At this point learning support staff give careful consideration as to which options the children with special educational needs might best take. In one discussion among the three learning support staff with respective responsibilities for the 13/14+, 14/15+ and 15/16+ age groups, for example, it became clear that children's liking for particular subjects while they were in the lower school were not the only criteria that should influence their choices.

As a result of this discussion with colleagues, the guidance provided by the learning support teacher for the 13/14+ age group children was also able to take into account the upper school subject teacher's style of working, the size of the class, the amount of writing needed, the nature of the course work to be undertaken, the extent to which learning support could be available, and for some children the extent to which the subject placed demands on visual perception or on fine motor skills.

Where assessment depends both on course work and on examination, and where support teaching can be available, students can complete a lot of course work and so be less dependent on examination performance for success. Three-dimensional studies require perceptual ability but little by way of fine motor skills. Dance, drama and physical education all involve rather more writing than someone unfamiliar with the syllabi might have expected. It was also clear from this discussion that for some subjects a judicious choice of examining board could favour children with particular disabilities.

In deciding on the allocation of students to tutor groups when they enter the upper school, staff again take care to distribute students with emotional or behavioural difficulties across groups, so that no one group has a concentration of students with problems.

Assessment

Whereas in the past the feeder primary schools all passed on the results of standardised tests administered to all children in the 10/11+ age group, in the previous year some passed on the rather less precisely defined National Curriculum attainment scores instead. Consequently the school is considering administering a standardised group reading test to all entrants, as a means of identifying special needs in accordance with the Code of Practice. The LEA's primary support teaching service passes on to the school the progress records of any entrants helped through that service.

The school maintains a student information file, available to all teachers, in which notes are made concerning any children of whom staff need to be particularly aware, for example because of extremely high ability, learning difficulty or a health problem. The new Code of Practice requires each school to maintain a register of children with special educational needs and establish an individual education plan for each one. While these procedures are no more than extensions of activities already occurring in the school, formalisation of assessment to this extent is likely to involve members of the already over-stretched learning support team in a great deal of work.

Children with statements are assessed by learning support staff twice a term in all the subjects in which they receive in-class support. The assessment forms seek a specification of the topics covered, children's achievements, any particular difficulties and the targets for the coming half term. The learning support team handbook advocates a behavioural objectives approach, saying that targets should be SMART, *i.e.* specific, measurable, achievable, realistic and timed.

Annual reviews include the use of standardised tests of reading accuracy and comprehension, spelling, and understanding of spoken vocabulary items. Views of tutors, subject teachers, children and their parents are also sought. Learning support staff are also encouraged to include estimates of social development.

In a later subsidiary study of the school's reading test results (see Appendix 3.5) the median progress of 53 children with statements over a one year period was found to be 0.5 years of reading age, and that of 25 children over a two year period was 1.2 years. While these rates of progress were modest, they were significantly greater than those found in the special school, where the median rates, in 71 and 27 instances respectively, were 0.1 years over one year and 0.5 years over two years. In each case the difference was highly significant statistically, beyond the 0.01 probability level. While these results should be interpreted with caution, they are certainly interesting and are discussed more fully in Annex 3.

When they reach the 14/15+ and 15/16+ age groups the students in the comprehensive school all follow courses leading to the General Certificate in Secondary Education (GCSE), but a few of those with statements follow modified courses leading to alternative accreditation. The child care course devised by the National Association for Maternal and Child Welfare is one such example. The proportion of students achieving well in GCSE examinations has risen progressively over the past three years. The OFSTED report based on its Autumn 1994 inspection referred to students' achievements in external examinations as being similar to LEA and national averages, and assessed standards generally as being commensurate with age and ability.

Pastoral care

While the school's pastoral care system offers children with statements the same opportunities for counselling as it does the children more generally, the fact that children with statements receive regular personal help with their studies gives them extra opportunities for discussing personal problems they may be experiencing. This is especially valuable for students in the upper school, who may be particularly likely to have concerns about their sexual development or about the temptations and hazards of drugs.

Following a period during which the behaviour of a number of children in the school was less than satisfactory, extensive consultation among staff led to the introduction of an assertive discipline programme. While some staff were sceptical about it when it was initiated, they soon became convinced of its effectiveness and it is now considered by staff generally to be highly successful. There is a school based induction programme for teachers in the use of assertive discipline. The underlying principles are stated in the staff handbook and the details are presented in a guidance document issued to all new staff, supply staff and student teachers.

The programme is in fact quite complex, but in essence it is based on five rules: children are expected to do as staff tell them, they must enter and leave classrooms in an orderly fashion, they must raise a hand and wait to be asked before speaking, they must arrive to lessons on time and appropriately equipped, and they must respect people and property. The rules are displayed on posters in all classrooms and are reinforced by a system of rewards and penalties; this is also displayed in all classrooms.

Individual rewards include oral praise, letters of praise sent to parents, and credits accumulating to certificates entitling children to have their names entered into lotteries which result in cash prizes. Whole class rewards include allocation of free time and entitlement to be first in the lunch queue. Penalties include having one's name written on the board and having to attend detention periods after lessons. Severe disruption can result in the child being withdrawn for a short period to a "time out" room, the incident and its consequence then being reported by letter to parents. The introduction of the time out room was said to have resulted in a marked decrease in exclusions because it provided a constructive alternative.

The assertive discipline programme was seen to be working well, with the emphasis being on reward rather than punishment and with children responding readily to the structure it provides. The school's discipline system involves some children having to carry report cards for a time, with teachers recording their behaviour in each lesson on their cards. It is understood that children sometimes demonstrate their approval of this system to the extent that they actually request that their behaviour be monitored in this way.

Liaison

Each year the co-ordinator for learning support and the head of the 11/12+ age group visit the feeder primary schools, identifying those children aged 10/11+ with special educational needs. They also meet staff of the LEA's primary support teaching service and the visiting educational psychologist to discuss the progress of children helped through these services. When children with statements start at the comprehensive school, staff place them in one or other of the tutor groups providing for children with statements but in doing so take care not to skew those groups too much towards the lower ability levels.

As they approach the end of compulsory schooling students have the opportunity for periods of experience in industry, designed to give them a taste of working life. Local employers are reported to be very good with students with special educational needs and there appear to be no problems in obtaining placements for them.

Careers guidance is linked with a related module which forms part of the English syllabus and a careers officer specialising in special educational needs ensures that parents as well as students are fully informed of opportunities. They aim to help all students with statements to have the chance of further education and effective links exist with the local college of further education.

Home-school diaries are found by learning support staff to be particularly useful in alerting parents to problems and pre-empting potential difficulties such as children neglecting to bring items of equipment into school or not completing homework. One support teacher referred to often being telephoned at home by parents and to feeling able to telephone them when necessary. Parents of children involved in the paired reading scheme referred to earlier are encouraged to provide further back-up by reading with their children at home.

Discussions were held with the mothers of five of the children with statements. While they were not necessarily representative of the school's parents of children with disabilities more generally, their comments are of interest. All said that the school gave their children a lot of support and that they considered their children's placement there preferable to placement in a special school. They appeared to initiate few contacts with the school.

One of their main concerns was what would happen when their children left school. Another was the acute social isolation of their children. Parents also spoke of their own isolation, and appeared to have little if any support from the social work agencies. There appeared to be a case for the parents of children with special educational needs at the school being helped to develop their own support group.

Conclusions

Undoubtedly the school visited is highly effective in providing inclusive education for children who in many areas of the country would have been placed in special schools, and it is able to do this without generating inordinate costs. The school systematically pays attention to the social as well as to the academic development of children with special educational needs, and has sound arrangements for preparing them for life after school.

One of the most striking features of the school's success is the time scale over which development has occurred. Present practice and attitudes across the school have evolved over a period of years, and this evolution appears to have required sustained commitment by the head and other senior staff, consistently supported in their endeavours by the school's governing body, by the LEA, and by aspects of national policy and legislation.

The factors that appear to have been particularly influential are listed below, starting with those at school level and radiating out through those at regional level to those at national level. Within each category the sequence is roughly chronological. This provides some indication of the order in which the factors appear to have become influential and, at school level, the successive steps that may need to be undertaken in order to put an innovation of this kind into place. It is recognised, however, that these various factors have run alongside one another to some extent and that once they have come into operation they need to be sustained continuously if inclusive education is to remain established.

At school level, influential factors include: wholehearted commitment to inclusive education by head, senior staff and governing body; the appointment of a coordinator for special needs at head of department level; the appointment of learning support team with time allocated for consultation and for preparation of materials as well as for teaching; systematic assessment of school entrants' capabilities; the provision by support staff of in-service training for teachers across the school; the general acceptance of teaching children with special needs as a responsibility of all staff; dispersion of children with special needs across tutor groups, with arrangements whereby classmates support them; in-class support across the whole curriculum; extensive and constructive consultation concerning the management of individuals; the implementation of a school-wide assertive discipline programme; the differentiation of all class teaching to meet varying abilities; extensive adaptation of learning materials to meet special needs.

At regional level, influential factors include: multi-professional assessment of some children with special educational needs; consistent adherence over the years to a policy of inclusive education; extensive consultation across the LEA concerning the best means of implementing this policy; the designation of enhanced resource schools and allocation of funding to support inclusive education in these schools; the monitoring of the progress of children with statements; documented guidance concerning the implementation of the 1994 Code of Practice; the planning and implementation of in-service training for teachers in ordinary schools, and for their school governors, in work with children with special educational needs.

At national level, influential factors include: government policy favouring inclusive education, as recommended in the Warnock Report of 1978; legislation supporting inclusive education, initially through the Education Act 1981 and later through its replacement and extension in the 1993 Education Act; legislation, initially through the Education Act 1981, concerning the multi-professional assessment of these needs; emphasis, also expressed in the Education Act 1981, and reinforced in current legislation and guidance on parents as partners in considering the education appropriate to children's special needs; promotion of the appointment in each ordinary school of a co-ordinator of work with children with special educational needs; funding, through the Grants for Educational Support and Training programme, facilitating in-service training for teachers developing expertise in meeting special educational needs in ordinary schools; guidance, as expressed in the 1994 Code of Practice, concerning a staged pattern of assessment and provision.

It is clear from the visits that the level of inclusive education achieved is the result of much effort and co-operation involving a lot of people over a long period of time. It is also clear that continued effort will be needed for the arrangements to be maintained. One possible line of further curriculum development, given appropriate support, is to consolidate the already extensive adaptation of materials to meet special needs, ensuring that it is present in all the subjects. Another is to review the extent to which teaching materials used in different subjects include elements that provide challenges for children right across the range of ability, including the most able, and then develop a strategy for overcoming any weaknesses identified.

At the time of the visits, people at school level and at regional level were particularly concerned about anticipated reductions in their education budgets. Should these occur, the teachers, governors, parents, education officers and elected council members who have been so instrumental in developing inclusive education may have difficulty in ensuring that the gains made over the years are not lost through reductions in staffing and in goodwill towards those with learning difficulties. Such reversals could in the long run result in extra expenditure rather than in saving.

Annex

Brief visit to a special school for students with moderate learning difficulties

Sampling was limited, as this involved rather less than a single school day on the part of only one of the visiting team. The special school is for children aged 11 to 16 with moderate learning difficulties, is set in an economically depressed urban area with a high level of unemployment, and most of the 86 children on roll live within a three mile radius of the school. The pupil/teacher ratio is just under 8 to 1 and the 11 teaching staff have the help of four full-time education care officers.

Processes of selection are such that most of the children in the special school function intellectually at levels attained by average children of between half and three quarters their age, and their educational attainments tend to run somewhat below this. While most children with special educational needs do not have these levels of disability, many of the children with statements in the comprehensive school do function within this range. The availability of external support services in the special education work of the two schools differs to some extent in type, with the special school receiving rather less support from an educational psychologist and rather more from a medical officer for example, but in terms of quantity of support the two are broadly comparable.

All four lessons seen proceeded smoothly, with the children well engaged in their tasks, and lunchtime activities were also carried out in an orderly fashion.

Children in the 11/13+ age range were divided by ability level into five sets for mathematics and in a lower ability set the eight children were usually helped by a teacher and an education care officer. They were sitting mostly in pairs and all were working steadily on individual educational programmes drawn at different levels from one or other of two published schemes. Differentiation appeared to be effective and judging from conversation with the children the fact that they were working at different levels did not carry with it any stigmatisation.

Setting also occurred for English in this age range and the work of the bottom set of nine children, managed by a teacher with no in-class support on this occasion, was similarly well differentiated through judicious choice of different levels of work chosen from published schemes.

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A science lesson run by one teacher for a class of eight students in the 14/16+ age range involved them in using flotation to compare the densities of different materials. While the lesson was well organised and the students were appropriately engaged it was clear that the science work generally suffered by its having to take place in an ordinary classroom with little equipment and no specialist laboratory facilities.

By contrast, a technology lesson for ten children aged 12/13+ was conducted in a spacious workshop well equipped for conventional craft work. The children had been using plastic tubes and syringes to make hydraulically operated arm extensions, were being engaged by the teacher in a whole class discussion of hydraulics generally, and were due to go on a visit to see hydraulic machinery in action during the following week.

8. United States

Introduction

This part of the publication arises from visits undertaken in Colorado, United States, during March 1997. In the context of OECD countries generally, judging from information gathered in the previous project (OECD, 1995*a*, p. 39), despite its having been highly innovative in developing inclusive education, the United States overall was continuing to educate a relatively high proportion of its school age population outside mainstream classes.

The OECD survey findings indicated that in the early 1990s the prevalence of children being educated outside mainstream ranged from virtually none in Italy and in the Canadian province of New Brunswick to 4.9% in Switzerland, with Australia occupying a median position at 1.55%. Within this range the United States figure of 2.9%, (which includes students who spend a large proportion of their time in special classes), while higher than that in countries such as the United Kingdom and Denmark, was lower than that in France or in Germany.

In fact, practice in the United States varies considerably from one state to another. Partly because of this, partly because of the country's relatively large population by comparison with that in other OECD countries, and partly because the states function largely autonomously, visiting was confined to the one state.

When approached in the context of this study, special education representatives in the US Department of Education recommended that the visiting be undertaken in Colorado, the eighth largest state, this being a state in which inclusive education had been developed considerably and which would be particularly likely to offer examples of sustained good practice.

For present purposes, therefore, Colorado is being treated as a "nation-state", with Colorado rather than the country as a whole being the unit of study and with its counties being treated as the regions within. However, where it is appropriate, some reference is also made to the United States context. Prior to the visits, senior staff concerned with the state's special education policies and practice received a framework document which identified issues to be explored at the different levels and presented key questions to be asked.

The visits were undertaken by the study's director and the study's senior consultant, the former visiting for three days and the latter for five. Time constraints precluded exploration of all the issues identified.

Information concerning relevant policies and practice was compiled partly from official documentation, partly through meetings with senior staff of the Colorado Department of Education and of districts visited, partly through discussions with university staff, with people running school-to-work transition programmes and with a representative of a parental body active in developments state-wide and beyond, and partly through visits to schools. Work with children was seen and discussed in seven ordinary schools and one special school.

A. The state pattern

Prevalence

National statistics (US Department of Education, 1996) indicate that during the 1993-94 school year some 12% of school students in the age range 6 to 21 years received special education. Statistics collated by the Colorado Department of Education (1996*b*) indicate that in December 1994, among Colorado's total school membership of 640 521 in this age range, 10.5% had disabilities to the extent that they required individual education programmes. Male to female ratio was just over 2 to 1. Prevalence varied appreciably from one district of Colorado to another, ranging from 7.6% to 13.9%.

Within the age range from birth to 21 years, 67 419 individuals were assessed as having disabilities. The state's published rules for the administration of the Exceptional Children's Educational Act (Colorado Department of Education, 1995) declares criteria according to which children are to be placed in different categories of disability. Among children who had reached school age the variations in prevalence from one major disability to another in December 1994 can be seen in Table 8.1.

Table 8.1. **Percentage of school-age individuals with particular disabilities among all school-age individuals with disabilities, Colorado, 1994**

Perceptual or communicative disability	53
Speech-language disability	19
Significant identifiable emotional disability	13
Multiple disabilities	4.8
Significant limited intellectual capacity	4.5
Physical disability	4.4
Hearing disability	1.5
Vision disability	0.5

In accordance with the Federal Government's requirements concerning the gathering of special education statistics at state level, the 67 419 individuals reported (Colorado Department of Education, 1996*b* and 1996*d*) include not only children with disabilities in publicly funded schools but also those in private schools and in Head Start programmes if their places are paid for from public funds.

These figures do not, however, include an additional 668 Colorado children who were attending the school for the deaf and blind, a correctional establishment or one of the state's two mental health institutes. Only two children were placed out of state. Within the United States, Colorado has relatively few of its children with disabilities placed in residential institutions, ranking 42nd among the 50 states.

As has already been stated, nationally (US Department of Education, 1996), during 1993-94, some 12% of school students in the age range 6 to 21 years received special education. The same report states that 95% of these school students receiving special education were educated on the premises of ordinary schools. Only some 0.6% of the total school population, therefore (*i.e.* 5% of 12%), were being educated outside the ordinary school system on account of their disabilities. However, this figure increases substantially if those students who spend a large part of their time in special classes are included.

For Colorado students in the same age range during the 1994-95 school year, the figures were 96% and 0.4% respectively. Within the general category of students with disabilities, Table 8.2 provides a more detailed breakdown.

Table 8.2. **Placements of students with disabilities, Colorado, 1994-95**

In ordinary class; for at least 80% of the time	71.0%
In special education resource room; for 21% to 60% of the time	16.6%
In special class; for 60% or more of the time	8.5%
Outside ordinary school; in public or private separate facility, in hospital or at home	3.9%

Provision

Nationally, there has been a considerable development in recent years in the number of schools practising inclusive education. The National Centre on Educational Restructuring and Inclusion (NCERI), after undertaking a national study on inclusion, reported that whereas in 1994 there had been 267 arrangements operating, by 1995 the number had risen to 891, involving students with a wider range of disabilities, with positive outcomes both for students and for teachers, and with all fifty states participating.

Statistics collated by the Colorado Department of Education (1996*b*) concerning the state's school age population of almost 660 000 in autumn 1995 indicated that over 92% of them were enrolled in the state's 1 448 public schools, spread across more than 50 counties and clustered administratively into 176 school districts, with just over half of these students attending schools within the Denver metropolitan districts and fewer than 5% living in rural districts. In order to enable them to share resources for provision such as that of special education, the school districts were grouped into 17 Boards of Co-operative Educational Services (BOCES).

In autumn 1995 the state provision's pupil/teacher ratio was 18.5 to 1, somewhat above the estimated ratio of 17.4 to 1 for the United States as a whole, with teachers constituting 52% of the districts' school level employees.

Among the 7.4% of the state's school age population enrolled in private schools in autumn 1995, just over half were in church-related schools and fewer than 1% (*i.e.* 0.06% of the total) attended one or other of Colorado's two private special education institutions.

No consideration of educational provision available to children with special needs in the United States could be complete without some account being taken of the recent and rapid growth of charter schools. By September 1996 half the nation's states had approved charter school legislation, creating more than 200 new schools (Centre for Policy Research, 1996), and the development is strongly endorsed nationally, *e.g.* by President Clinton in a televised speech in North Carolina in early 1997.

While continuing to be publicly funded, charter schools are largely autonomous, operate under contracts between the organisers (*e.g.* groups of parents or teachers) and a public authority (*e.g.* the local school board), and under the agreed terms of the charter can maintain a chosen curriculum (*e.g.* focusing on arts or sciences, or using particular methodologies) and serve a specified population (*e.g.* gifted children, or children with particular disabilities).

Colorado was identified in the review by the Centre for Policy Research (1996) as being the third state to enact charter school legislation, authorising the creation of up to 50 charter schools by July 1997 and giving preference to schools that target students at risk. By August 1996 the state had 31 such schools (Colorado Department of Education, 1996*b*). The existence of charter schools raises questions as to whether they might provide well for some students with special needs but not necessarily provide well for all of them, and not necessarily on an inclusive basis. These questions were answered in part by the Centre for Policy Research review, findings of which are reported here in the section on evaluation.

Policy

Federal government policy with regard to special education is embodied in the Individuals with Disabilities Education Act (IDEA), central purposes of which are "to assure that the rights of children and youth with disabilities from birth to age 21 and their families are protected" and "to ensure an effective and individualised education designed to address each child's unique needs in the least restrictive environment" (US Department of Education, 1996).

In recent years, the re-authorisation of the IDEA has been the subject of extensive national public debate, with various modifications proposed. The 1997 re-authorisation included a rule that special education provided in ordinary classes should be of benefit to all the children, including those without disabilities. It also strengthened opportunities for teachers' professional development in this field.

While least restrictive environment (LRE) policy is endorsed across the United States, the extent to which it is implemented has varied considerably, both across states and within them. These variations, and reasons for them, are discussed, with particular reference to developments in Colorado, by McNulty *et al.* (1996). As these authors point out, in Colorado's educational administration, services for children with disabilities are considered within the context of exceptional students with diverse learning needs more generally, including those who are disadvantaged, at risk, talented, or in linguistic, cultural, ethnic or racial minority groups.

The main goals of the IDEA are included in the policy statements of the Colorado Department of Education (1994) underpinning the department's State Plan for 1995-97, which also details procedures through which the plan is to be implemented and its implementation monitored. The State Plan also reports that inter-agency agreements supporting right to education policy have been established between the Colorado Department of Education and the other public and private agencies providing for the education of children with disabilities, and that the implementation of these agreements is evaluated at least annually.

The Colorado State Board of Education, in its 1996 State Report Card (Colorado Department of Education, 1996*b*), laid considerable emphasis on its commitment to promoting academic excellence and referred to the appointment of the Standards and Assessment Development and Implementation (SADI) Council, with a remit to design mechanisms for the statewide assessment of academic standards, to be implemented annually from spring 1997.

Legislation

By 1995, as can be seen from the 18th Annual Report to Congress (US Department of Education, 1996), substantial progress had been made nationally towards meeting IDEA's goal of providing a free appropriate public education for all children with disabilities. However, among children with disabilities generally, although the proportion included in regular education had increased over the past few years, with the percentage being educated in resource rooms having decreased correspondingly, the challenge of achieving fully inclusive education still remained, particularly for those in the age range 12 to 21 years.

The Exceptional Children's Educational Act (ECEA), as amended in 1994, directs states to prepare annual reports concerning their special education programmes, that the reports should be based on information required by the federal government, and that the states should collect no additional information. The Colorado Department of Education (1995) has issued an extensive set of rules through which the Act is to be interpreted and implemented.

The Colorado Standards-Based Education Law of 1993, implemented from 1994, is in accordance with current national emphasis on standards in promoting a raising of the achievements of all students (McNulty *et al.*, 1996). It includes a mandate for school districts to address the needs of students with disabilities. School districts are required to report students' academic achievements and, where performance falls short of defined standards, show how they plan to revise the curriculum on offer to meet the needs of the students concerned. The legislation is supported by a document, "Opportunities for Success", described below.

Colorado's Educator Licensure Act of 1991 sets the standards people must achieve if they wish to become licensed to teach in Colorado (Colorado Department of Education, 1996*b*).

The Colorado Charter Schools Act of 1993 directs that, where charter schools enrol students with disabilities, the school districts pass on to them at least a proportionate share of the state and federal resources generated by these students.

Guidance

The Consortium on Inclusive Schooling Practices (CISP), funded by the US Department of Education but not acting as its representative, issues periodic guidance nationally. The December 1996 Issue Brief, for example, a document of particular use to parents and other advocates of children with disabilities, provides a framework for evaluating policies for inclusion.

Much of this CISP document takes the form of specific questions to ask, some at state level and some at district level, about various issues: curriculum, assessment, accountability, professional development, funding, and governance. There are also recent CISP briefs on support services (Rainforth, 1996) and assistive technology (Sax *et al.*, 1997).

The federally funded Technical Assistance for Parent Programs (TAPP) project also offers guidance nationally, operating through centres based in eight states of the United States. The country also has over 70 parent organisations, many representing particular disabilities, offering advice over wide areas geographically, and funded from various sources, some of them federal.

One example of a source of independent government-supported guidance, provided by parents and available to parents nationally, but in this instance

Colorado-based, is that of Parent Education and Assistance for Kids (PEAK). Some of the work of this organisation is described below, in the sub-sections on training and on parental and community involvement.

The Colorado Department of Education (1992) has issued a document designed to help educationalists evaluate and improve their capabilities for providing effective inclusive education for those students with the most significant disabilities. The document was developed over a five year period with the help of federal funding. It uses a checklist format to present criteria in seven areas: peer interaction, staffing, teaching methods, the management of teaching programmes, vocational preparation, multi-disciplinary work, and partnership with families. Once schools have checked the extent to which they can meet the stated criteria, the document can help them develop action plans to overcome identified weaknesses.

In line with increasing national emphasis on assessing and promoting educational standards achieved by all students, the Colorado Department of Education (1996*c*) has issued an extensively researched document, "Opportunities for Success", designed to help teachers implement standards-based education. Presented both in book and in compact disc formats, it includes components particular to different groups of learners with special educational needs. While the range of students with which the document is concerned is wider than that of the 1992 publication referred to above, and while it focuses more on assessment, the two do cover common ground to some extent and can be regarded as complementing one another.

Colorado's standards-based education initiative is promoted periodically through a newsletter, "The Standards Connection", distributed in paper form but also accessible through the Internet. The ten-page autumn 1996 issue, for example, includes accounts of in-service training sessions run for teachers in two districts, information about forthcoming conferences and workshops, and timetables for the implementation of the State Assessment Program.

Funding

Nationally, the total cost of educating a child referred to in 1985-86 as "a handicapped pupil" was at that time estimated to be, on the average, 2.3 times the cost of educating a non-handicapped pupil (Decision Resources Corporation, 1988).

During the 1980s, as part of the implementation of its inclusive education policy, the Colorado Department of Education made various changes, reported by McNulty *et al.* (1996), to its procedures for funding special education. These included transferring funds for the education of children with more significant disabilities from the state-level Developmental Disabilities section of the Department of Human Services to the local school districts.

Following this transfer of funds, ordinary schools with these children in their catchment areas were given a choice. Either the school with such a child in its catchment area could choose to use the money allocated to educate the child itself, or it could choose to sacrifice the money allocated and ask for the child to be placed in a special school, with the special school receiving the allocation. Given this choice, ordinary schools increasingly chose to educate the children themselves. The Department of Education also enhanced the inclusive education of children with disabilities by shifting funding for their transport out of a separate budget and into the budget for transporting children more generally.

Partly on the basis of this experience, McNulty and colleagues referred to an emerging consensus concerning criteria, including those in the following checklist, that funding formulae should meet if they are to support inclusive education.

- Allocating a single amount for each child.
- Tying special education funds to a general school funding formula.
- Adding a flat percentage to allow for special needs generally.
- Considering an adjustment for poverty.
- Including arrangements to evaluate the formula's effectiveness across the state.

Colorado's special education expenditure for the financial year 1994-95 is reported (Colorado Department of Education, 1996*b* and 1996*d*) as having been USD 294 160 335. Salary costs constituted 75% of this. The total can be divided out into cost of instruction and cost of support services, with the former accounting for 76% of it. Federal funds constituted 10% of the total. Spending on special education constituted 7.4% of the state's overall cost of education; over the previous 10 years it had fluctuated within the range 6.8% to 7.7%.

Across the state, the average additional annual cost per student with disabilities varied considerably, ranging from USD 2 528 in one area to USD 5 836 in another, the latter being the area in which a relatively high proportion of them were receiving their education in a special school. The overall average, of the state's 67 419 students with disabilities, was USD 4 363 per student over and above the USD 5 750 which was the average annual cost for the 573 102 students without disabilities.

As most students with disabilities spend most of their time in ordinary classes, much of the cost of their special education must be regarded as being additional to the cost of their "ordinary" education, though it is not possible on the basis of the statistics gathered to know precisely what their total costs are. The situation is complicated further by the fact that some of the special education work will inevitably be of benefit to students without disabilities. In broad terms, the overall ratio of cost per student with disabilities to cost per student without disabilities appears to be of the order of 1.8 to 1. 250

The annual educational cost per student in the special schools visited, excluding travelling costs, was said to be USD 12 800. This would appear to be some 27% higher than the cost per student with disabilities in ordinary schools, but the two populations are not directly comparable, as the special school inevitably has the higher proportion of students with severe disabilities.

Training

McNulty *et al.* (1996) reported the high level of priority accorded by the Colorado Department of Education to ongoing training for teachers in helping children with special needs in inclusive settings. They referred to a professional development initiative, part of the federally-funded Statewide Systems Change Project, whereby senior staff of schools with good experience in developing inclusive education were acting as mentors to senior staff who were just beginning to re-structure their schools to make them more inclusive.

Over the 1990s, Parent Education and Assistance for Kids (PEAK) has been collaborating with other Colorado-based voluntary and public service organisations in running the national Strategies for Inclusive Education Conference, attended annually by some 2 000 participants, with families, special educators and general educators all represented (*ibid.*).

Within Colorado, there are many workshops, discussion groups and conferences organised for parents. For example, the PEAK calendar for February/March 1997 includes announcements of over 100 such events, along with various helpline and ongoing support group opportunities. Many are also open to educators and some, the Parents Encouraging Parents (PEP) conferences for example, are sponsored by the Colorado Department of Education.

Support services

Total special education staffing support for Colorado's 67 419 children with disabilities in December 1994 was reported (Colorado Department of Education, 1996*b* and 1996*d*) to be the full-time equivalent of 8 340 personnel, consisting of 6 747 instructors (including 3 362 teachers, 2 673 instructional aides and 595 speech correctionists), 1 056 related services staff (including 401 psychologists, 284 school social workers, 147 nurses and 145 occupational therapists), 405 other support staff (including office workers) and 132 administrators.

Parental and community involvement

Colorado schools and school districts have accountability committees which carry responsibilities for ensuring that members of the community are involved in the development and in the evaluation of school improvement programmes, and that the results of evaluation are reported to the community at large.

Parent Education and Assistance for Kids (PEAK) has already been referred to as a Colorado-based organisation running services used by parents across the United States. Funding comes both from the US Department of Education and from the Colorado Department of Education. Support is offered to parents in Colorado through the PEAK Parent Center, which is open during and sometimes outside office hours, through a statewide telecommunications network which offers on-line access to a database, and through a periodical providing a calendar of relevant events, some of which relate to specific disabilities.

The PEAK Parent Center also publishes various Colorado-based resources, developed by its own staff, for parents and educators wishing to promote inclusive education. They are presented in the form of books (Schaffner and Buswell, 1989, 1991 and 1992), a manual (Buswell and Veneris, 1989) and workshop kits (Schaffner and Buswell, 1988; Buswell, 1989).

Curriculum development

The Supporting Inclusive Learning Communities (SILC) Road Project, funded federally on a five-year basis through the Statewide Systems Change Grant, is designed to enhance school improvement across Colorado, with schools in six counties participating during 1996-97. The project involves collaboration between staff of the Colorado Department of Education, of the University of Colorado at Denver, and of the PEAK Parent Center. Schools set school improvement targets which they try to achieve through a process of action research, making use of a framework and associated documentation designed by SILC Road staff. SILC Road liaison staff meet regularly, usually at least monthly, with key school staff, to review progress and perhaps to revise targets.

Evaluation

At the national level, Villa and Thousand (1995) identified various factors contributing to successful inclusive education. McNulty *et al.* (1996), viewing Colorado within its national context and considering factors influencing the state's progress in recent years towards effective inclusive education, regarded policy favouring inclusion as an essential but not in itself sufficient component. There must also, they concluded, be "a conscious and effective leadership effort at the federal, state, and local levels". They saw effective leadership as including clearly articulated beliefs and values, a well defined vision of what is being sought, and the development of strategies whereby the vision can be brought into reality.

Strategies found to be successful during the 1980s included encouraging schools to shift from focusing on children's disabilities to focusing on their needs, monitoring individual education programmes to check whether the more restrictive placements were fully justified, changing the funding system so that it supported moving children from special schools to ordinary schools, providing relevant in-service training for teachers, and collaborating with organisations representing the families of which children with disabilities are members.

The Colorado Department of Education runs a system of accreditation which applies both to districts as a whole and to individual schools. Districts are granted Enterprise Accreditation Contracts, which are reviewed annually. Criteria for accreditation include effectiveness in ensuring that students have equitable academic opportunities, in securing quality academic performance, and in being accountable to the community. At the time of the visits, the system was under review, with a greater emphasis on results envisaged.

The Department also arranges an onsite review in each district at least once every five years to monitor and evaluate the extent to which the district is maintaining educational standards effectively and is implementing national and state legislation with respect to people with disabilities. Outcomes of one such review (Colorado Department of Education, 1996*a*) are referred to in the next section.

In considering the development of charter schools in Colorado, the Center for Policy Research (1996) found that the average for the 19 schools surveyed, out of the 24 then in existence, included only 7.3% with disabilities, as opposed to the 9.1% statewide. Six of them however, had between 10% and 20%.

The charter schools generally called for a high level of parental involvement. While some of them were providing for some students with learning difficulties in quite small classes, staff there did not necessarily consider themselves suitable to teach students with significant learning problems or behavioural difficulties. There were ambiguities as to who should provide, and who should pay for, special education support services. The schools were not well informed about the legal obligations and procedures concerning special education, and there was little evidence of appropriate supervision of the staff involved.

Further developments

Within the state administration there is a strong awareness of the need to achieve high standards and therefore to assess the educational standards actually achieved by all students in Colorado. This has been the basis of the development of guidelines (Colorado Department of Education, 1996*c*) for standards-based education. In the past, lower attaining students, perhaps 10% of the total, have been exempted from statewide attainment tests.

At the time of the visits, administrators and teachers were actively debating the feasibility of placing educational programmes and associated assessment on the same footing for all students, including any modifications, perhaps involving alternative tests, that prove necessary for those with severe disabilities. Assessment was starting in spring 1997 with students in grade 4, extending to grade 8 in 1998 and grade 11 in 1999. Achievement is being assessed in reading, writing and geography initially, with assessment in mathematics, science and history being introduced from 1998.

The Statewide Systems Change Project, supported through a federal grant and managed jointly by the Colorado Department of Education and the University of Colorado at Denver, aims to enhance schools' efforts to improve the quality of education of their students. Strategies include developing communication networks across the management teams of different schools, encouraging teachers to engage in continuing professional development, and increasing family and community involvement in schemes to help students with diverse learning needs (McNulty *et al.*, 1996).

The state's major inclusive education push for the near future is to spread existing good practice, said to be well established in some 60 or 70 schools at the time of the visits, more widely across the schools, with the emphasis on catering for diversity. The concept of diversity is broadening, with ethnic and cultural diversity becoming as significant as variation in ability. Minority groups, mostly Hispanic, have an increasing presence in Colorado and now constitute about a quarter of the child population.

B. Local arrangements

Introduction

Visits were made to a school district in three of the six Denver metropolitan counties. While all three are in the same geographic region of Colorado, in demographic terms they contrast considerably. Where procedures referred to as having been adopted in one district are not referred to with respect to one or both of the other districts, this does not necessarily mean that they do not occur there also.

The first district visited was the Boulder Valley district, which includes several of the more affluent suburban communities close to Denver. The district's average attendance in 1994-95 was 94% and the 1995 school graduation rate was 85% (Boulder Valley Board of Education, 1996).

The second district visited was the Commerce City district. For the purposes of this study, this district provides the main focus, and most of the information provided in this section came from here. Unless stated otherwise, references to the Commerce City's characteristics and procedures have been drawn mainly from the district's comprehensive plan and procedures manual for students with disabilities (Adams County School District 14, 1996*c*).

Commerce City is an urban area in which heavy industry features strongly. Among the state's 176 districts, it is one of the more disadvantaged economically, with 59% of families below the federal poverty level and 57% of students eligible for free or subsidised lunches. Ethnically, 50% are Hispanic and 45% Caucasian. The district's average attendance in 1995-96 was 90% (Adams County School District 14, 1996*a*). The 1995 school graduation rate was 50.5%.

The third district visited was Jefferson County, a county with only one school district. It is a mixed suburban and rural area on the western side of Denver, the largest school district in the state, covering some 780 square miles.

Prevalence

Boulder Valley's statistics for 1996-97 indicate that at pre-school and school levels special education students comprise some 13% of the total. In Commerce City, the comprehensive plan for 1996 refers to 750 students, 12.5% of the total student population, as being in receipt of its special education services. Individual education programmes were said to be provided for some 9% of the Jefferson County students.

Provision

Within the state education system, responsibility for the placement of any Colorado child in a special education programme is delegated to the Board of Education of the school district of the child's residence. In order to ensure that all children with disabilities are provided for appropriately, each district is expected to have one person designated as the "child find" co-ordinator, responsible for ensuring that there is a process for the identification of all such individuals from birth through 21 years and for the evaluation of their progress.

Boulder Valley school district provided for over 25 000 students in 1996, administering 33 schools at elementary level, 11 middle schools, one of which is a special education school, six high schools and a charter school (Boulder Valley Board of Education, 1996).

Commerce City administers 11 schools (seven elementary, two middle, two high), providing for some six thousand students altogether. There is also pre-school provision. A child-care centre and an infant/toddler programme, both include provision for children with disabilities (Adams County School District 14, 1996*b*). Also situated in the district is one all-age private parochial school.

In accordance with their parents' requests, a few children with hearing impairment have been attending special programmes in a nearby district provision (Colorado Department of Education, 1996*a*). Following a recent state-initiated review of its provision (*op. cit.*), Commerce City was commended on its commitment to providing neighbourhood schooling for all its students.

Jefferson County School District provides for over 85 000 students, with 20 pre-school centres, 83 elementary schools, 17 middle schools and 14 high schools. In addition there are eight alternative schools, one of which is an all-age special school for individuals with moderate or severe intellectual and/or physical disabilities. The other alternative schools, presenting parents with a diversity of choice, include two offering traditional fundamental programmes, one for teenage mothers, one for school drop-outs, one based on Alternative Co-operative Education (ACE), and one providing technical training. There are also six Charter schools (Department of Communications Services, Jefferson County, 1996*a* and 1996*b*).

In addition to the public schools administered by the school district, in Jefferson County there were said to be two private schools which together provide for some 130 students with severe learning difficulties, some 110 students in private residential educational provision licensed by the state, and about 50 in detention centres run by the Division of Youth Services.

Guidance

In order to help teachers in Commerce City to manage behavioural difficulties, state and district staff have collaborated to produce a manual, running to over 40 pages, based on an antecedent-behaviour-consequence (ABC) model, and including charts for analysing observations and recording outcomes (Filbin *et al.*, 1996).

Funding

Seventy seven per cent of Boulder Valley school district's 1996-97 general fund, the fund through which operating costs are paid, came from local sources, which include property tax and specific ownership tax. Budgeted net revenue per funded pupil was USD 5 600 (Boulder Valley Board of Education, 1996).

In Commerce City it was pointed out that only a very small proportion of the extra cost of educating students on individual education programmes comes from Federal Government sources: some USD 350 per student per annum. In considering funding generally, it should be noted that the salaries of paraprofessionals assisting the special education specialist teachers in the schools are much lower than those of the teachers; respective full-time annual rates of USD 13 000 and USD 35 000 were quoted. This may well be a key factor influencing decisions as to how far to delegate in-school support for students on individual education programmes.

Training

In Commerce City, all special education teachers are required to hold a recognised teaching qualification with appropriate endorsements in special education.

Specialist qualifications may be in the area of cognitive needs or affective needs, and there are further specialisms within these two groups. As the specialists meet four times a year to share their expertise, they are allowed to help students with disabilities other than those in which the specialists have specific training. In-service training for any school staff may be prescribed on a student's individual education programme.

In order to ensure that local teachers can qualify for special education work, Commerce City offers its own endorsement courses. For example, staff of the district's Student Services Division collaborate with School of Education staff of the University of Colorado at Denver to run a three-year part-time on-site training course in work with students with emotional disturbance. The course provides successful participants with credits towards a university master's degree as well as with the endorsement they need if they wish to work as special education teachers in Commerce City. It includes 315 contact hours of coursework and 440 hours of supervised internship.

Another recent course run in Commerce City by university and district staff was for existing special education teachers, on team collaboration within their own schools. It consisted of seven meetings, spread over a school year, with pre-meeting assignments and post-meeting readings, and covered topics such as problem-solving among staff, assessment of students' needs, designing individual education programmes, team teaching and evaluating work undertaken. At the end of the course each participant had to submit a plan for documenting in-class support for students with disabilities, which was to be implemented during the following school year.

In addition, various short special education courses are run in Commerce City, often on a one-off basis, mostly for special and general education staff, some also involving parents, and some involving students with disabilities. For spring and summer 1997, 10 such courses were planned, including topics such as using information technology, developing reading strategies, managing behaviour, supporting gifted students, developing individual education programmes, and counselling students at risk.

The district also co-operates with the University of Colorado at Denver to provide internships for teachers who are studying there. Throughout the first year of postgraduate special education training, the intern spends a good part of each week working in a school, and while there is supervised by a special education specialist.

Support services

Support services for the 3 143 students on individual education programmes in Boulder Valley consist of the full-time equivalent (FTE) of 177 special education teachers and 69 FTE secondary providers, the latter including communications specialists (20 FTE), social workers (14 FTE), psychologists (14 FTE), occupational therapists (9 FTE) and various other specialist teachers.

Support services in Commerce City are largely school based, in accordance with the district's policy of providing all educational help for all school-age students within their own neighbourhood schools. With respect to students with disabilities the schools work mainly to a full inclusion model, though there is some part-time extraction of individuals and small groups. School-based specialists meet regularly to discuss possible solutions to problems experienced.

Each Commerce City school has the FTE of two or more specialists in cognitive and/or learning difficulties, special education paraprofessionals, a speech therapist (0.5 FTE), a speech therapy paraprofessional assistant (0.3 FTE), a school psychologist who also serves as the school's child advocate (1 FTE in each elementary and middle school, 0.5 FTE in each high school), an early childhood special education specialist (1 FTE) with paraprofessional help (2 FTE) in each elementary school, and the occasional services of a school counsellor at high school level (Adams County School District 14, 1996*b*).

Whereas the school district had at one time employed several social workers, their service had been devolved to school level, enabling each school to have a mental health professional (Colorado Department of Education, 1996*a*).

Support services at district level in Commerce City include the Director of Special Education, an assistant director, a "child find" co-ordinator (0.6 FTE), a vision/hearing teacher (0.6 FTE), occupational therapists (1.6 FTE), a physical therapist (0.3 FTE) and an audiologist (0.3 FTE).

Children from birth to five years in Commerce City are screened developmentally. School nurses conduct hearing and vision screening tests, annually at elementary school level and periodically thereafter. Parents are encouraged to request their children's assessment if they are concerned about their development. Any student thought to have a disability is first reviewed by the school's Resource Review Team.

If the student is then referred on to special education at district level, outcomes of multi-disciplinary assessment are considered by an individual education programme committee, which determines whether the child has a disability and, if so, the measurable objectives to be achieved and, in accordance with the accepted principle of least restrictive environment, the nature of the educational services required. Once the individual education programmes is implemented, it is reviewed annually.

Parental and community involvement

Boulder Valley participates in an "Americorps" scheme whereby higher education students have tuition fees met by the federal government in return for their undertaking work with children at risk, including both in-class support and after-school tuition. Through this scheme, Boulder Valley schools have a steady supply of help from some 12 to 18 students, each being accommodated for this purpose in a local air force base for a 12 week period.

In Commerce City, when a student is considered for special education by an individual education programme committee, the parents are members of that committee. Parents who disagree with the multi-disciplinary assessment have the right to obtain independent assessment, at public expense if the first assessment is deemed inappropriate. Parents are included in membership of the district's student services committee, which monitors progress made across the district in meeting the needs of students with disabilities.

Commerce City runs training programmes designed to help parents prepare and carry out home teaching and to help them make use of relevant community services. Parents are encouraged to visit the schools and see their children at work in the classrooms. If neither parent nor guardian of a child with disabilities is available, the district assigns a surrogate parent to represent that child, for example in the periodic reviews of the child's progress. The district's child find co-ordinator runs community awareness campaigns, including media announcements and presentations to parental and professional groups, to help ensure that children with disabilities are identified and receive appropriate services.

Curriculum development

Boulder Valley is notable for its school-to-work transition programmes. For students with mild, moderate or severe disabilities reaching or having reached the end of statutory schooling, the Business and Extension Transition Alliance (BETA), developed by Stroup (1996), has been running since 1988 and offers an 18-week programme. The first nine weeks help students develop the work habits and skills identified by a prospective employer as necessary to a particular job. The second half consists of on-the-job training, following which, if the required competencies have been demonstrated, the trainee will be taken into employment at the basic level and a career path will be planned.

Boulder Valley residents aged 16 to 25 who have mild to moderate educational disabilities also have the opportunity to take advantage of the district's School to Work Alliance Program (SWAP), which offers psychological and medical assessment, individual counselling, six to eight week on the job training programs at half pay, work experience contracts, and financial support for transport and for the purchase of work materials. In addition, a community college runs two-year technical and vocational education programmes for students with learning difficulties. Overall, the number of students graduating through these three routes is about 120 a year, with most of them then going on to employment or further training.

Evaluation

Boulder Valley's BETA programme of vocational training for school leavers with disabilities was judged to be highly successful by the validating Program Effectiveness Panel of the US Department of Education (1996) and an account of its procedures is sold in text and video form to staff of other districts wishing to develop similar arrangements.

In Commerce City, the 1996 comprehensive plan for services to students with disabilities includes procedures whereby the services are evaluated annually, reviewing the extent to which policies are being implemented and the degree to which students are achieving their set goals. The student services committee meets at least three times a year to review progress and update the plan to overcome any shortfall.

As part of the state's monitoring system, representatives of the Special Education Services Unit of the Colorado Department of Education visited Commerce City in December 1995 to evaluate its procedures for identifying and educating children and young people with disabilities. The visit focused on the extent to which the district complied with the Individuals with Disabilities Education Act (IDEA) and the state statute, the Exceptional Children's Educational Act (ECEA). The ensuing report (Colorado Department of Education, 1996*a*), which runs to over 50 pages, assesses standards achieved in each of over 200 aspects of the district's special education services, and asks the district to indicate how any identified weaknesses will be overcome.

Federal and state requirements had been complied with in 95% of cases and the report congratulated Commerce City on the outstanding progress it had made in identifying young children with disabilities, on its commitment to providing neighbourhood schooling for all its students, and on its use of parent advocates and child advocates.

On the debit side, the district had yet to meet IDEA's requirements to periodically (every six to eight weeks on average) evaluate all students' progress towards the objectives stated on their individual education programme, to list on the notification letters all the people invited to the individual education programme meetings, and to invite students and parents separately to individual education programme meetings addressing transition issues. There were also some weaknesses in providing for students with hearing impairment, and one of the high schools did not have documented transition plans.

One way in which the Commerce City district conducts its own evaluation is by calculating a series of performance indicators. Results are published in the form of an achievement profile, which lists data for each school separately. The profile for 1995-96 (Adams County School District 14, 1996*a*) includes statements of the schools' goals, progress made towards them, any special achievements, attendance rates, drop-out and graduation rates for the high schools, results of standardised tests in main academic subjects, and parents' and students' responses to questionnaires asking about the extent to which they were satisfied with various aspects of schooling. Given the demographic characteristics of the area, outcomes overall were encouraging. For example, across the district, by comparison with the previous year, students' average attendance level had continued to be 90% and parent's satisfaction rating had moved up from 82% to 93%.

C. The schools visited

Basic information

Visits were made to two middle schools and two high schools in Boulder Valley, an elementary school and a high school in Commerce City, and a middle school and a special school in Jefferson County. Time constraints were such that it was not feasible to undertake sustained observations of classroom teaching and learning, to have extended discussions with personnel, or to explore all the issues identified in the study's framework. Consequently, views formed of the work being undertaken are impressionistic.

Some idea of schools' staffing levels and their distribution can be gained from data collected in the second of the middle schools visited, situated in one of the relatively disadvantaged localities of a generally affluent area. Among the 800 or so 6th to 8th grade children on roll, about a sixth, mostly Spanish-speaking, did not have English as their first language and about a third were on subsidised lunches. Teaching staff, amounting to a full-time equivalent (FTE) of some 38, including six FT special education teachers. In addition, there were paraprofessionals helping children on individual education programmes, three FT counsellors, a speech and language teacher (0.5), a social worker, a psychologist (0.4), and a community liaison officer.

The third high school visited was also set in an economically disadvantaged area, with over half of its students having Spanish as their first language, and with a transiency rate of about a third. The school had 1 250 9th to 12th grade students on roll, 140 of them on individual education programmes, and a teaching staff of 70 FTE teachers, 6.5 FTE of them being special education specialists. Other support staff consisted of paraprofessionals (5 FTE), a psychologist (0.5), a speech and language therapist (0.5), an assistant to the speech and language therapist (0.3), a School to Work Alliance Program (SWAP) officer (0.5), a paraprofessional SWAP assistant (0.5), and a mental health specialist funded by the communities and schools medicare programme (0.4). In addition there was occasional support, based externally to the school, from a counsellor, an occupational therapist, a physical therapist, and a school nurse.

The special school visited had the whole county as its catchment area and had on roll 140 students, their ages ranging from pre-school to 21, 110 of them within the kindergarten to grade 12 span. Their disabilities were mainly intellectual and/or physical, ranging from moderate to severe, for example with intelligence quotients mostly within the 30 to 80 range. Staffing consisted of 19.5 FTE teachers, 21 FTE paraprofessionals, 3.7 FTE speech and language therapists, two FT occupational therapists, 2.7 FTE physical therapists, a FT social worker, a FT psychologist and a FT nurse. The special school also serves as a base for special education support staff serving the district as a whole.

Work seen and discussed

The following examples are included in order to provide a flavour of the work undertaken; they are not necessarily representative.

A speech and language therapist took the lead in oral work with a class of 20 children aged 8 and 9, while the class teacher recorded on the blackboard the essence of children's responses. Questioning, starting with "Give me a noun that's a thing", and recording were designed to help children to distinguish between concrete and abstract nouns. The therapist mainly sought volunteers, who had to answer in whole sentences. She was also careful to secure the involvement of a girl with learning difficulties, questioning her directly, asking a simpler question, and accepting a phrase rather than a sentence in response.

Also in this class was a girl with hearing and vision impairment, for whom the therapist's paraprofessional assistant was acting as language interpreter. When the girl became restless the assistant took her out of the room. In the resources room the girl had a tactile strip, altered each day and used to indicate to her the content of the day's lessons.

In an 8th grade class of 22 students, the English work focused on the mechanics of writing, with the teacher conducting oral work based on a standard grammar text, of which each student had a copy. The teacher conducted a whole class discussion, designed to help the students distinguish between instances in which nouns did or did not require capital letters, and students asked questions or volunteered information. Most of them appeared to be able to make at least some of the distinctions required, the session was fairly relaxed, and while the class included students with disabilities they did not appear to be particularly disadvantaged in this situation.

In an 8th grade mathematics lesson, the 24 students were engaged in exploring the concept of symmetry. Given a task involving identifying two lines of symmetry and then cutting across them to create various shapes, the students participated vigorously, though the ones who had been designated as having learning disabilities were noticeably quieter than the rest. They were helped, partly by the teacher and partly by other students, to produce successful outcomes. When the class was asked to follow up the activity by answering written questions, the teacher asked the students on individual education programmes to tackle alternate questions only.

In discussing her work, a science teacher referred to the kinds of adaptations she made to her lessons for the benefit of a teenage student, functioning developmentally at about kindergarten level, placed in an ordinary class. Usually it was possible for him to carry out broadly the same kind of work as the rest of the class, as long as instructions were simplified, as long as there was someone else (adult or student) who could help him, and as long as he was expected to complete only part of the task. Only occasionally was it necessary to set him on to a different task entirely.

The science teacher estimated that the extra preparation time needed was usually about 25%; for example, an hour to prepare the class lesson, and a further quarter of an hour to prepare the adaptation needed by this particular student. She felt that the extra work involved was fully justified, was convinced that the student was better off in the ordinary school than in a special school, and thought that the experience was good for the other students as well.

A middle school's staff development day had been arranged to finalise plans for the following school year. Proposed arrangements differed significantly from those already in existence, and clearly documented copies of the proposals had been distributed to the meeting's participants. The proposals had emerged following extensive discussions which the school's leadership team had undertaken, not only with staff of the school but also at state level with representatives of the education department, university and parent groups involved in the Supporting Inclusive Learning Communities (SILC) Road Project.

Following a plenary session, the staff development day's participants split into groups, to discuss particular issues, including that of special education. This discussion, focusing on within-school support services, evidenced underlying concern among class teachers about the problems they would be facing in the coming year and the help that might be available to them.

Accommodation and resources

Accommodation and resources appeared to be at least adequate in all the schools visited, judging from the brief tours undertaken, although it was evident that curriculum breadth on offer at the two Commerce City schools had suffered, in terms of shortages in practical subjects, as a result of the earlier referendum decision to limit funding. The special school in Jefferson County appeared to be particularly well provided for, with attractive buildings, excellent health care and physiotherapy facilities, well equipped classrooms and plenty of teaching and circulation space.

Curriculum

The first middle school visited ran both a conventional programme and an alternative programme, entitled "Choice", which a proportion of the students, including some with disabilities, elected to follow. While both programmes were set within the same curriculum framework, the "Choice" students worked more independently, negotiating with teachers and parents the goals they wished to follow and taking some responsibility for monitoring their own progress. Any one project undertaken might cover a variety of school subjects, and chosen tasks might take them out of the school, to the public library for example, or out on a field trip. It was thought particularly useful for students with disabilities who had the capability to be creative but who did not take well to highly prescriptive instruction.

In the third high school visited, most of the 140 students on individual education programmes followed the ordinary school curriculum all the time. When the 44 who were sometimes extracted were in special classes, they followed an "integrated studies" curriculum, which focused on English, mathematics and affective education. Affective education was concerned with their social and emotional adjustment, and included topics such as conflict management. The 15 students who were in "life skills" classes on a full-time basis followed a separate curriculum, concerned mainly with acquiring self-help skills and designed to enhance their progress towards functional independence in adulthood.

In this school, in recent years the overall curriculum had suffered some curtailment, affecting less academic subjects disproportionately, as a consequence of a district referendum which had voted a standstill on salaries. This had resulted in teachers being laid off and cuts being made to the more expensive practical programmes such as art, music, vehicle maintenance and physical education. While the most recent referendum had agreed some increase in funds, the effects of this had yet to be experienced.

Organisation

The third of the middle schools visited had 1 063 students on roll, including 90 on individual education programmes. Staffing consisted of 48 teachers, five special education teachers, three counsellors, three administrators, a social worker (0.5 FTE), a speech and language therapist (0.5 FTE), and a psychologist (0.16 FTE). The students were allocated to four equivalent teams at grade 7 and four at grade 8, each team consisting of four or more classes and having at least four teachers: one specialising in English, one in mathematics, one in science and one in social studies. In addition, six of the teams had some special education teacher time.

For the whole of this middle school the last lesson of each day, referred to as the "mountaineer" lesson, was a tutorial lesson which the class teacher might use to discuss some aspect of personal relationships or to catch up on a topic introduced earlier but not covered adequately. During this lesson, some of the students with disabilities would be withdrawn from the classroom and would gather together with a special education specialist, who would help them with their homework, with a special assignment, or with topics they had experienced some difficulty in grasping during the day. Staff had not found these arrangements altogether satisfactory, and were considering implementing a different form of organisation at the start of the next school year.

In the second of the high schools visited, with some 1 950 students in grades 9 to 12 on roll and 210 of them considered to require special education, the special education teachers numbered 10 FTE and their paraprofessional assistants 5 FTE. The students with disabilities spent two thirds or more of their time in ordinary classes but for one class a day they were extracted in groups for help with their study skills or for discussion of any problems arising. Some 25 students were considered to have significant emotional or behavioural problems, and they too spent most of their time in ordinary classes, but this was almost always with two teachers to the class.

In the third of the high schools visited, over half of the 140 students on individual education programmes did all their classwork in ordinary classes, 24 spent about a quarter of their time in special classes of 15 or so and 20 spent about half their time in these special classes. A further 15 students, mainly students with severe learning difficulties, spent all their time in life skills classes, with some five students per class. On entry to the school, all the 9th grade students except those enrolled for the life skills classes start off in ordinary classes, with the extraction arrangements not operating until the summer term.

Conclusions

Across the United States, the movement towards inclusive education for individuals with disabilities, as with civil rights movements more generally, had some of its origins at grassroots level. For more than two decades now, it has also been powered through often-stated national policy and through national legislation, underpinned by the principles of the right to the least restrictive environment and the right to individual educational programming. The fact that the legislation has been subject to extensive ongoing public review and to occasional revision throughout this period has helped to maintain inclusive education at the forefront of educational reform.

One factor influencing moves towards inclusive education at state and local levels is the obligation on states to be active in interpreting national legislation in the light of local conditions and in implementing it accordingly. Another, clearly in evidence in Colorado, is the fact that among the many grants that the US Department of Education has provided to various bodies over the years have been several focusing on inclusive education. Some of the funded projects are run by state education departments, some by academic institutions, some by parent groups, and the recipients are not necessarily bound by government policy.

In Colorado, all three kinds of organisation receive grants of this kind, and the Colorado Department of Education also provides some financial support to university and parent bodies. A significant feature of the state is the extent to which these organisations run joint projects, including one providing in-service training for school leadership teams in developing strategies for inclusive education. For several years senior staff of the Colorado Department of Education have collaborated with university and parent bodies to provide a network of strong leadership in promoting inclusive education.

Within the ordinary schools, teachers specialising in special education, along with their paraprofessional assistants, are class teachers' main sources of support in the teaching of children with disabilities. In the district focused on, these specialists are required to have completed an advanced special education qualification, and other support staff, notably psychologists and speech/language therapists, are also school-based. Overall, the constellation of positive pressure and support is such that a teacher unsympathetic to inclusion, or having difficulty in coping constructively with students with disabilities, could have a hard time.

Recent statistics indicate that only 0.4% of Colorado state's total school student population are placed outside ordinary schools because of disabilities, a percentage lower than that pertaining in the United States as a whole, and that 71% of students with disabilities are in ordinary classes for at least 80% of their time. It transpires that maintaining this high level of inclusion is not inordinately expensive. Economy of provision is helped by the fact that the pay of paraprofessionals is less than half that of teachers. The state's overall student/teacher ratio in its schools is 18.5 to 1, and the average cost of educating a student with a disability appears to be approximately twice that of educating an ordinary student.

As in the United States generally, Colorado has a high proportion of its school population, over 10%, formally placed on individual education programmes. In the district focused on for the purposes of this study, evaluation conducted by the Colorado Department of Education indicated that, while much good work was being done, there were some weaknesses in monitoring individual education programmes.

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OECD 1999

Annex 1

Special Education Teacher Training Survey of 13 Countries

Phyllis Magrab

Background

At the root of implementing a public education system that embraces a philosophy of full inclusion are well appropriately and trained teachers and school administrators. The importance of their commitment to change, to the values and attitudes that evolve a philosophy of full inclusion, and to providing leadership towards the goal cannot be overemphasised. It is thus critical to understand how teachers and administrators are being prepared to meet this challenge.

To better understand the way in which teachers are being prepared to implement a philosophy of full inclusion and to educate children with disabilities, the CERI/OECD has gathered information from 13 countries on their related policies and practices. In 1997 a questionnaire (Appendix 1.1) was sent to the CERI representatives of all OECD countries to be completed by key informants such as government officials, academic leaders, and/or representatives from professional associations. The following countries participated in the study: Belgium (Flemish community), Canada (New Brunswick), Denmark, Germany, Hungary, Ireland, Italy, Mexico, Netherlands, Norway, Sweden, Switzerland, and the United States.

Related to the preparation of special education teachers, specifically the study gathered information around the demographics of special education teachers, recent efforts around teacher preparation and innovative strategies, the structure of teacher education, training content of teacher preparation, training outcomes, and in-service activities. The following represents the findings from this survey.

Outcomes

Most countries reported the number of teachers trained annually in special education at both the primary and secondary level (Table A1.1). Gender and disability representation were noted by each country. Overwhelmingly in countries able to report gender distributions, women represented 77-99% of those trained. Few countries had data on the number of individuals with disabilities who were training to become special educators. In those that did, the percentages were very small ranging from 0.02% to 5%. Few countries separated their statistics according to speciality areas. Notable in these demographics are the small number of teacher role models with disabilities and the limited number of males.

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Table A1.1. Demographics

	Special education teachers trained	Percentage women	Percentage disabled	Percentage in speciality areas	Special education teachers trained	Percentage women	Percentage disabled	Percentage in speciality areas
	Primary				Secondary			
Belgium	1996-1997 534 students in additional teacher course in special education	N/A	N/A	N/A	1996-1997 534 students in additional teacher course in special education	N/A	N/A	N/A
Canada (New Brunswick)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A. Teachers not certified in special education
Denmark	(Primary and secondary combined) 150	80%	N/A	Specific difficulties 75%, General 25%	(Primary and secondary combined) 150	80%	N/A	Specific difficulties 75%, General 25%
Germany	1996-1997 (Primary and secondary combined) 2 639	77%	N/A	74% enrolled in special education pedagogies as first field of study 26% studying special education but not as their first field of study	1996-1997 (Primary and secondary combined) 2 639	77%	N/A	74% enrolled in special education pedagogies as first field of study 26% studying special education but not as their first field of study
Hungary	(Primary and secondary combined) 100-150	99%	2-5%	Speech therapy and learning difficulty most popular	(Primary and secondary combined) 100-150	99%	2-5%	Speech therapy and learning difficulty most popular
Ireland	Each year 625 teachers take the Diploma Course on Special Education	80%	0%	Generic course	N/A	N/A	N/A	N/A
Italy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mexico	1 000	80%	0.02%	N/A	N/A	N/A	N/A	N/A
Netherlands	(Primary and secondary combined) 2 554 enrolled, 1 239 graduate in 1996	25% enrolled students, 78% gratuated students	N/A	Many	(Primary and secondary combined) 2 554 enrolled, 1 239 graduate in 1996	25% enrolled students, 78% gratuated students	N/A	Many

Table A1.1 **Demographics** *(cont.)*

	Special education teachers trained	Percentage women	Percentage disabled	Percentage in speciality areas	Special education teachers trained	Percentage women	Percentage disabled	Percentage in speciality areas
	Primary				Secondary			
Norway	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A. because of many routes to becoming a special education teacher
Sweden	400	95%	N/A 3% concentrating on deaf	N/A	200	95%	N/A 3% concentrating on deaf	N/A
Switzerland	N/A	N/A	N/A		N/A	N/A	N/A	N/A
United States	(Primary and secondary combined) 1996-1997: 17 211	86.50%	2.53%	N/A	(Primary and secondary combined) 1996-1997: 17 211	86.50%	2.53%	N/A

General background

Countries were asked to contextualise their teacher preparation activities in light of efforts in the country to achieve full inclusion and to identify fiscal and other resources dedicated to teacher preparation (Table A1.2). The information reported by countries was exceedingly diverse and typically corresponded to where the country developmentally fell on a continuum of achieving full inclusion. Particularly noteworthy was the issue of centralised and decentralised policies for full inclusion. For example, Denmark, Italy Norway, and Sweden articulated national goals for full inclusion that aimed toward related teacher preparation activities with a centralised implementation of teacher preparation programs. On the other extreme, Switzerland and the United States represent highly decentralised views of implementation of educational reform with emphasis in Switzerland being placed on the diversity and independence of the 26 cantons for both policy and teacher preparation. Few countries were able to report on fiscal and other resources allocated to teacher preparation within the country.

Innovations noted also were consistent with the status of full inclusion in each country (Table A1.2). Examples included collaborative links between general and special education (Flemish Community of Belgium, Italy), implementation of the 1993 UNESCO special needs resources pack (Hungary), resource centres to support inclusion (Sweden), and special summer institute programs (New Brunswick, Canada).

Structure of training

In understanding the structure of special education training, countries were asked to contextualise this with respect to regular teacher training. An effort was made to gather information about the settings for training, the entry requirements, the length of training, the practical experiences required, the credentialing and the in-service training requirements for both regular and special education teachers. Tables A1.3 and A1.4 summarise these finding.

With respect to the structure of training for regular teachers (Table A1.3), the settings for training are typically universities or teacher training colleges. In some instances, there are special entry examination requirements beyond a secondary education certificate. The length of training varies from three to four years. Countries report that the training includes practice experiences ranging from 12 to 40% of the overall training experience. In most countries, credentialing to practice as a teacher requires only the completion of a university diploma but in some countries the successful passing of an examination is also required. Licensing requirements are not typical.

With respect to the structure of special education training (Table A1.4), in all but one country, additional training was required to become prepared as a special educator. Some countries first required preparations as a regular teacher. The length of training varied and was not necessarily comparable depending upon the initial level of training of the student. Most countries required practical experiences ranging from 6 to 30% of the training. An array of speciality options were noted by the countries including such areas as learning and behaviour difficulties, severe and multiple disabilities, and visual/hearing impairments.

Training content and outcomes

To achieve inclusive education, a variety of skills and training strategies were addressed using various teacher training models (Table A1.5). Countries reported skills and training in

Table AI.2. General background and innovations

	General background	Innovations
Belgium	Higher education decree of July 1994 – continuing education for qualified teachers in special education. Decree of April 1996 – courses for qualified teachers in special education are to be converted to continued teacher training for special education. Funding in 1997 BEF 1 500 000 annual basis. Post fact BEF 67 000 per diploma awarded.	Integrated education: collaborative link between ordinary and special education. Student can participate in ordinary classes in normal school with help from special school. Complete integration and partial integration is possible at all levels. "Care extension project" to increase capacity of normal schools to work with children with special education needs, child follow-up system. "Collaborative project" makes available a co-ordination between normal and special schools.
Canada (New Brunswick)	Since 1986 legislation, many initiatives: – Initially a provincial program to orient all educators involved in integration. – Successive years – ongoing training of resource teachers and teacher assistants. Last 5 years – summer courses on methodologies, counselling, assistive technology. Majority of activities at school district level and to come from school district budgets.	Summer Institute Program for teachers, administrators, and parents. Funded and organised through the Department of Education – 2 days, 3 weeks. One School District has a two year training program for classroom teachers who wish to gain expertise in pedagogical skills to support inclusive education. All children with SEN will receive its support (additional teaching and childcare services). Participation in the regular education system is required.
Denmark	– Basic education aims at educating all children. – New Act on Folkescole mandates the schools to give all children challenges, to differentiate education. – A sectornet makes all information from the Ministry of Education available to all schools. – Steering of resources is centralised but may be supported by central pools to motivate and co-finance projects.	– Legislation speaks to education for all. A statement on special education exists, and all categorising is abolished. – There is a well-organised pedagogical psychological system in all municipalities that assist with organising education for children with special needs.

Table A1.2 **General background and innovations** *(cont.)*

	General background	Innovations
Germany	Decentralised administration and legislation in the field of education has led to diversity with the Länder of the Federal Republic of Germany. Though the Länder develop their policies and strategies for education independently they meet in the KMK (Conference of Ministries for Culture and Education) in order to co-ordinate systems and to consider reforms. The latest decision on inclusive education by the KMK appeared in 1994. It recommended that these special educational needs of individual students be responded to by society regardless of any institutional frames or borders – the question must be: what is the best for the student with special educational needs?	A variety of possibilities for students with special educational needs is developing within the Länder. It ranges from Special Schools to all kinds of inclusive education like single integration, integrational groups within regular classes, small classes of students with special educational needs in regular schools, co-operation and collaboration between regular schools and Special Schools. The level of implementation and development for all the above mentioned possibilities varies from land to land.
Hungary	In all forms of teacher education and post graduate courses, 5% of training is devoted to inclusive education.	1993 UNESCO documents "Special needs in the Classroom, Education for All" translated into Hungarian. Resource pack and seminars in Hungary. TEMPUS project form Cambridge now Baron College has intensive post graduate course for regular teachers based on UNESCO resources pack.
Ireland	0.9% of all students educated in special school (ages 4-18). 50% of all children with disabilities have been educated in the mainstream. Special emphasis in teacher preparation is on mixed ability settings. GBP 40 million allocated for 1994-99 on in-career development. Special needs is among the priorities. Expected that modules on special education will be offered to all primary level teachers in the future.	Supports to mainstream schools: remedial teachers, resource teachers, visiting teachers. Special equipment, additional part-time teacher hours to post-primary schools to assist with hearing and visual impairment.
Italy	Two year specialised courses established in 1975 modified through ordinances and decrees until 1996. 1998 decree establishes new 4 year teacher training preparation in universities to include training for students with disabilities. Specialist teachers will provide forms of support for the entire educational activity *i.e.* to the pupil, the school as an institution, the family and the community.	Closer integration of specialist teachers with regular teachers.

Table A1.2. General background and innovations *(cont.)*

	General background	Innovations
Mexico	– Establishment of the National Programme for the Well-being and Incorporation in Development of Persons with Disabilities, which, at presidential level, is an integrating sectoral policy co-ordinating public and private offices and organisations of the health, business, social and other sectors, with a view of supporting actions in favour of persons with disabilities. – Within the framework of the programme, the first National Register of children with some sign of disability was established to identify the population between the ages of 0 and 20 suffering from some disability.	– Established a bilateral agreement with Spain for developing the educational integration project, which comprises a broad programme for the further training of teachers to foster the integration of children with disabilities in regular schooling. – Creation on a national level of regular education support for dealing with students with special educational needs attending regular basic schooling. – Multiple Care Centres have also been set up to deal with such students, to assist their educational, working and social integration in accordance with their requirements, characteristics and interests.
Netherlands	– New standards for teacher competencies. – Total revision of the curriculum in teacher education.	– Networking regular and special schools. – Leadership training. – Special programs on literacy, reading, numeracy. – Financial incentives.
Norway	Full integration is main aim, therefore, initial teacher education programs include topics related to special education. Also teachers can take one-two years of study for a degree in special education. In-service courses to improve ordinary teachers' capacities; 15% of all teachers attending in-service do so in special education. Government has responsibility for overall goals of in-service; municipality has responsibility for implementation.	1991 – reorganisation of special education adopted by national assembly so that aid is available in local community. The reform assures adapting education in ordinary school for *all*. As a result structure of teacher education is undergoing change.
Sweden	Framework and national goals established by parliament and cabinet; municipalities responsible for implementation. Education Act states basic goals. Training is another way of regulating. All compulsory teachers should complete 1/2 term of studies in special education but not all teacher programs have followed this intention. Recent government committee appointed to improve teacher training and to include the need for studies in special education. Another government committee on supporting teachers to work with reading and writing difficulties will finish their work in 1997.	The Swedish National Agency for Special Education through pooled resources provides guidance, educational materials, and regional computer resource centres in 23 locations throughout Sweden to support inclusion. Also if a parent wants a child in regular school, the child cannot be placed in a special school. Will evaluate this in the year 2000.

Table A1.2. **General background and innovations** *(cont.)*

	General background	Innovations
Switzerland	Inclusive education is not promoted as a central policy directive. Education is the responsibility of the 26 cantons; therefore, there are diverse and independent systems; teacher education is also organised by the cantons. Swiss Conference or Canton Directors of education co-ordinate systems and considers reforms. Standards of teacher education were addressed in 1993. In 1994 they looked into qualifications teachers should have to teach children with disabilities. In 1995 a report was published on new models of teaching to support inclusive education. The group is currently setting standards for all teacher training which will create more uniform quality.	The Federal Disability insurance law now allows funds now used in special schools to be used also in regular schools. Parent – professional networks exist. Zurich (as an example) is advanced in teacher reform. In 1996, after 5 years of debate, Zurich implemented an agenda for action for reforming education for children with special needs.
United States	– States have responsibility for the licensing or credentialing of teachers who practice in public schools. There is little reciprocity between states. Teacher shortages in one state are not easily handled by recruiting graduates from other states. – Most states have severe shortages in hiring speech/language and motor specialists.	Higher education institutions across the country are looking at merging teacher preparation for general and special education. Syracuse University, the University of Cincinnati, University of Florida, and the University of Colorado at Denver have components of such programs in place. Professional development schools and other education partnership between P-12 public schools and higher education institutions are being developed across the country; professional organisations and accrediting agencies both public and non-profit are increasingly developing standards that promote such partnerships.

Table A1.3 Structure of training – Regular teachers

	Belgium	Canada (New Brunswick)	Denmark	Germany
Settings	– The initial teacher training courses equivalent to basic training of one cycle at colleges of higher education lead to the first 3 types of teacher The academic initial teacher training and the initial training at an academic level lead to the 4th type of teacher	University	Teachers colleges	University and practical work in schools. Phase 1 – University Phase 2 – Practical work
Entry requirements	– Initial teacher training applicants have secondary education diploma – Initial teacher training at academic level only for holders of a diploma at an academic level	Undergraduate degree interview, background with children, high academic standing	General certificate of education	The "Abitur" which is to be achieved through graduation from the "Gymnasium" (altogether it adds up to 13 years of schooltime)
Length of training	– Initial teacher training courses are 3 years – Initial teacher training at academic level is parallel with or following second degree university education Education – 270 hours or educational study plus 600-750 hours of specific educational study	4 years undergraduate 1 year education degree program	4 years	For primary and secondary level – 3-5 years (Phase 1, plus 18-24 months Phase 2) Gymnasium-teachers and Special-Ed teachers – 6-8 years (Phase 1, plus 18-24 months Phase 2)
Practical experience	Relation between practice and theory is one-third	30%	6 months	After graduation from university follows Phase II which takes place in schools and lasts between 18-24 months
Credentialing	Success in examination leads to a diploma	Degree award Teachers licence		Success in examination, official diploma in teaching awarded by the Länder
Jurisdiction	Diploma awarded by educational institution	University	Ministry of Education	Land Department of Education/Ministry
Licensing	No update of diploma	Department of Education	No	No continuous evaluation, no updating, teachers become Civil Servants who should be inspected frequently but in practice this rarely takes place
In-service	Yes – demand driven	School districts	Yes	

Table A1.3 **Structure of training – Regular teachers** *(cont.)*

	Hungary	Ireland	Italy
Settings	Teacher training colleges Universities	University	University
Entry requirements	Secondary school certificate and successful entrance examination	– Primary Leaving Certificate Results minimum – grade C3 in 3 higher level subjects, grade D3 in 3 other subjects – Secondary Leaving Certificate Results minimum – grade C3 in 2 higher level subjects, grade D3 in 4 other subjects	N/A
Length of training	4 years, eight semesters	– Primary 3 years – Secondary 4 years	4 years
Practical experience	15-20%	Primary 40% Secondary 12%	N/A
Credentialing	No system	University degree	N/A
Jurisdiction	University/college and state examination board	Primary Dept of Education and Science Secondary Registration Council	N/A
Licensing	No	No	N/A
In-service	For special education, not regular education	Yes	N/A

Table AI 3. **Structure of training – Regular teachers** *(cont.)*

	Mexico	Netherlands	Norway
Settings	For initial teacher training, there is a nation-wide system of teacher training colleges – Teacher training colleges – Kindergarten teacher training colleges – Advanced teacher training colleges – Specialised teacher training colleges	Teacher Training Colleges University	University and State College
Entry requirements	For initial training, the baccalaureate For future training and professional improvement, a teaching degree is required	Certificate of senior general secondary education or pre-university education or senior secondary vocational education	3 year study in general subjects at upper secondary level or some of the areas of study in technical and vocational subjects
Length of training	Initial training lasts four years. The other types of training vary according to the level and degree desired. On average, the time spent by teachers on updating and improvement ranges from 15-day to one-year courses up to 2 years for master's courses and 4 for doctorate level	– Teacher Training Colleges 4 years group teacher, subject teacher – University: 5 years, subject teacher	4 years
Practical experience	Initial training is 30%. For in-service training of teachers, the aim is to allow at least 20% for practice	25%	12% 16-18 weeks during first 3 years
Credentialing	At degree and master's level, they receive a certificate of study, assistant teacher's card, a title and a teaching certificate	Certificate as a group teacher or subject teacher	Certificates
Jurisdiction		Teacher Training College or University	Educational jurisdictions
Licensing	This Ministry of Public Education through the Directorate-General of professions	No	No
In-service	N/A	Regular education – No Special education – Yes	Yes

Table A1.3 **Structure of training – Regular teachers** *(cont.)*

	Sweden	Switzerland	United States
Settings	University	Special colleges University for some secondary level I, most secondary level II, all gymnasium	Four year or graduate level
Entry requirements	Upper secondary learning certificate	By canton, but the EDIC 1993 standards require graduation from gymnasium or Mittelschule	Vary: Bachelor's degree, state competency exams, bachelor's degree in competency area
Length of training	3.5 – 4.5 years	At least 3 years Usually more for secondary levels and compulsory practicum and 4 weeks in a French region	Varies
Practical experience	15%	25% (in cantons of Zurich)	Varies by state
Credentialing	University diploma in teaching	Teacher education institutions	Usually state approved teacher preparation program plus state exam
Jurisdiction	University	Director of Ministry of Education of the Canton	Individual state
Licensing	No	Evaluation every 4 years	Given by state
In-service	Yes	N/A	Yes

Table A1.4 **Structure of training – Special education teachers**

	Belgium	Canada (New Brunswick)	Denmark	Germany
Special training	Additional training for teachers of special education	Numerous credit courses. Some institutions offer post-graduate diplomas. All graduating students must have one special education credit	Yes	Start with studies when entering university majoring in special education. Alternative: post-graduate study after having studied and graduated in teaching
Settings	College of higher education	Universities. School districts	University	University and practical work in schools. Phase 1 – University Phase 2 – Practical work
Entry requirements	Holder of diploma in initial teacher training	Admission requirements for university entrance and/or degree program	Teacher's certificate	As for all other teachers, the "Abitur" which is to be achieved through graduation from the "Gymnasium" (altogether it adds up to 13 years of schooltime)
Length of training	1 500 hours minimum	Varied – most university courses are 120 credit hours	18 months	For primary and secondary level – 3-5 years (Phase 1, plus 18-24 months Phase 2). Gymnasium-teachers and Special-Ed teachers – 6-8 years (Phase 1, plus 18-24 months Phase 2)
Speciality options	Supplements initial teacher training	Specialised training for teachers of hearing/visually handicapped	Speech, hearing, reading/sight motor – general learning difficulties	Fundamental knowledge on paediatrics, medicine and psychology, strategies for diagnostics, psychological testing with standardised measures, special kinds of therapies like speech-therapy, knowledge in advising and counselling, collaboration skills
Practical experience	No	Only a requirement for Bachelor of Education degree	Yes	After graduation from university follows Phase II which takes place in schools, it lasts between 18-24 months
Percentage of practical experience	Determined by college	N/A	15%	
Credentialing	Diploma in additional teacher training for special education	New Brunswick teacher licence	Certificate	Success in examination, official diploma in teaching awarded by the Länder

Table A1.4 **Structure of training – Special education teachers** *(cont.)*

	Hungary	Ireland	Italy
Special training	Yes	Yes	Yes
Settings	One special college Barczi Gusztav College of Special Education Budapest	Universities, supplemented by teaching practice in special schools or in special classes in mainstream schools	University
Entry requirements	Secondary school certificates Entrance examination	Qualifications as a primary teacher	N/A
Length of training	4 years	Academic year	4 years with additional 500 hours of which 100 is practical work
Speciality options	Education of the hearing-impaired Education of the visually-impaired Speech therapy Psychopedagogy Somatopedagogy Education of the intellectually challenged Education of children and adults with learning difficulties	Generic course (hearing impairment not included) or hearing impairment	Supplements initial teacher training
Practical experience	Yes	Yes	Yes – integrated component of the course
Percentage of practical experience	20-25%	18%	20% of additional preparation time allotted for practical work
Credentialing	Teacher or therapist in appropriate field	Diploma in special education Diploma for teachers of the deaf	N/A

Table AI.4 **Structure of training – Special education teachers** *(cont.)*

	Mexico	Netherlands	Norway
Special training	The University of the Americas and the Intercontinental University, which offer Master's programmes in special education	Yes Not compulsory	Yes In addition to general teacher training
Settings	Specialised teacher training colleges	Special colleges (Three colleges of higher education)	Yes In addition to general teacher training
Entry requirements	The only requirements are the baccalaureate (secondary school certificate) for degrees and a degree for masters degrees	Students must work in either regular or special schools	Universities and Colleges
Length of training	Four years for degree courses and 2 years for masters degrees.	One year	Varies – To obtain "cand.paed.spec." – 6 years
Speciality options	Hearing and language, intellectual disability, neuromotor disorders, sight disability, learning problems and behavioural problems	Learning and behavioural difficulties. Severe and multiple handicaps. Deaf/partial hearing. Blind/partially sighted. Severely maladjusted, etc.	Hearing impairment, learning difficulties, mental impairment, logopedics, social and emotional difficulties, visual impairment. At the University of Oslo, the study that leads to the title "cand.paed.spec." is divided into 4 sections.
Practical experience	N/A	Yes	Yes
Percentage of practical experience	Generally 30%.	Varies	N/A
Credentialing	A study certificate, a teacher's assistant card, a title and a professional license. With a master's degree they obtain the title of master	Special education Teaching qualifications	Six years gives "cand.paed.spec." but under revision

Table A1.4 **Structure of training – Special education teachers** *(cont.)*

	Sweden	Switzerland	United States
Special training	Yes Based on diploma for teaching at different levels	Yes	Yes
Settings	University	Varies by canton	Four year or graduate level institution
Entry requirements	Diploma in teaching	EDK standard: regular teaching certificate	Varies from bachelor's degree in education and state exam to bachelor's degree in content area
Length of training	3 semesters	EDK – regular teacher training plus 2 years	Varies
Speciality options	Complicated learning situations, deaf/impaired hearing pupils, pupils with impaired vision, intellectually handicapped	Trend towards generalists	N/A
Practical experience	Not formally	Yes	Yes
Percentage of practical experience	6-10%	20-30%	Varies
Credentialing	Diploma in special education	Diploma recognised in the canton but as EDK standards become widespread will lead to Swiss wide recognition of diploma	By state

Table A1.5 Content of training – Regular teachers and special education teachers

	Belgium	Canada (New Brunswick)	Denmark	Germany	Hungary
Skills and training	N/A	Skills related to classroom organisation, teaching strategies, assessments, and teacher deportment. Skills related to multilevel instruction, co-operative learning, authentic assessment, learning styles application, collaborative consultation, counselling strategies	– Pedagogical psychological knowledge; – Ability to challenge all students – Team work – Information technology	Basic teaching skills, methods, home-room teachers task, psychological skills, diagnostical work, (further compare with above)	– Musical skills – Visual arts skills – Drama skills – Diagnostic and therapeutic skills – Educational diagnostic skills
Teacher training methodologies	Inclusive education approached theoretically Teacher practice in special education is *not* part of initial teacher training	Educational model of skill development-theory, models, simulated practice with observation and direct feedback, coaching, continuing application with mentor, peer guidance	N/A	In Phase I mainly in Theory, in phase II candidates work along skilled school teachers and are coached advised and counselled by special ed trainers	Training in psychological and educational diagnostics Training in educational therapy – For regular teachers introductory courses in special education, which are mainly theoretical training with some practical experience – For special education teachers – Special course in integration and integration issues are incorporated in most subjects in all fields
Role of outside groups	Flemish Council for Education advises and consults. It is composed of government bodies, educational staff, parents' associations, social and economic organisations, and educational experts	Very little	via the political system		Lecturers invite representatives to speak to students in lectures and seminars

Table AI.5. **Content of training – Regular teachers and special education teachers** *(cont.)*

	Ireland	Italy	Netherlands	Norway
Skills and training	*Primary* – Some subjects at an advanced academic level – Content of the primary curriculum – Teaching skills *Secondary* – University degree course – Teaching skills	Special teachers should not be viewed as separate from other teachers. Supports for disabled students who are generally included will be strengthened by defining the functions of a specialised teacher. These are: – to advise teachers to improve the quality of individual programmes. – to advise teachers to assist in the process of curriculum differentiation and developing innovative pedagogies. – to provide advice to families to better co-ordinate families and schools – to co-ordinate services available in the community with the school to facilitate the integration of disabled persons.	Long list of starting qualifications for beginning teacher. For teaching children with special needs the central notion is "adaptive education."	Skills to function as advisors and role models to children and collaborators with parents and other relevant authorities. – Ability to understand how conditions at home, at school, in the close environment, and in society effect learning and development. – Knowledge about inclusion in all aspects of life.
Teacher training methodologies	Pupil assessment, workplan preparation, group teaching. All teachers with "regular" training are eligible for appointment to special education posts. Active participation by children with disabilities with their peers is an underlying theme.	Practical work related to the particular functions identified above.	Qualifications more elaborated in the courses for the training of special education teachers.	N/A
Role of outside groups	Advocacy groups may be represented on official review committees. Advocacy groups may make presentations to ministry on a regular basis. The ministry can then influence teacher training institutions.	N/A	N/A	Drafts of new curricula in national teacher training programs sent for wide review including to associations for the disabled.

Table A1.5. **Content of training – Regular teachers and special education teachers** *(cont.)*

	Sweden	Switzerland	United States
Skills and training	Special education training is aimed at preparing the teacher to teach, give advice, and support pupils in different educational situations. Most important skill is how to co-operate with others in different situations.	– Skills needed to successfully teach and work in school. – Ability to cope with stress and various demands that arise in the classroom. – Ability to take the lead or guide, and possess good management skills. – Communication skills. – Creativity. – Openness and tolerance. – Reflective capacity. – Ability to co-operate and work in teams. – Psychological/perceptual skills. – Moral and ethical awareness. – Working successfully with heterogeneous groups of children. – Ability to work in teams. – Participation in school development projects.	Teacher preparation programmes vary in length from a fifth year, post-baccalaureate degree to two years of study, combined with a bachelor's degree, to master's degree programs. Teacher candidates typically received a combination didactic, campus course offerings combined with some sort of practicum and internships supervised in P-12 schools or campus-based laboratory schools. Professional development schools represent a more heavily field-based education approach.
Teacher training methodologies	Regular teachers study inclusion 10 points of 120 for their diploma. Special educator is expected to support the schools with deeper knowledge and skills as an expert.	Regular teachers: – Intensive study weeks for all aspects of special education; – Lecturers of education and psychology on issues related to inclusion and school related services. Special education teachers do practice.	In many cases, teacher candidates are taught theory, then asked to practice discrete skills based on that theory and then, finally, apply the practice in real-time settings in public schools. In best practice scenarios, teacher candidates work alongside highly skilled public school teachers learning practice and theory simultaneously.
Role of outside groups	Teacher training departments of the universities have an ongoing dialogue with advocacy groups and others.	Swiss Federal Teachers' association developed and disseminated their ideas about the future professional identity of teachers.	The use of advisory groups and the role of advocacy organisation in influencing teacher preparation is loosely connected and generally based c[illegible]he initiative of university prepara[illegible] programmes to seek such input.

varying degrees of detail. Switzerland framed an interesting array of process skills including theollowing: ability to cope with stress, ability to lead, creativity, openness and tolerance, reflective capacity, ability to work in teams, and moral and ethical awareness. Norway identified three key functions: to serve as an advisor and role model to children and collaborator with parents and other relevant authorities; to understand conditions at home, at school, in the close environment, and in society; and knowledge about inclusion in all aspects of life affecting learning. In Italy four functions have recently been defined:

- to advise teachers on how to improve on the quality of individual programmes;
- to advise teachers on how to assist in the process of curriculum differentiation and developing innovative pedagogies;
- to provide advice on how to better co-ordinate families and schools;
- to co-ordinate services available in the community with the school to facilitate the integration of disabled persons.

For those countries that reported methodologies, they included intensive study, observation with feedback, practicums, and mentoring (Table A1.5).

In-service requirements typically are voluntary with no country reporting a systematic plan.

Assessment of teacher training typically is conducted by both external and internal examiners. Written and practical examinations prevail (Table A1.6). The impact of assessment of teacher training ranges from staff review of outcomes to use in planning, to use of findings in the continual revision of training (Table A1.6).

Summary and conclusions

In summary, countries, by and large, are in a state of flux dealing with educational and other reforms that influence the implementation of full inclusion and the related teacher training issues. Ireland noted that in 1998, 90% of primary trained teachers now received a module on special needs. The emphasis on general versus special education to implement inclusive practices varied notably among countries further affecting teacher training endeavours. There was considerable variation in the training content for initial teachers and some variation in the requirements for the training of special educators. There were clear implementation differences between countries that had decentralised and more centralised policies for education and teacher training. While most countries report still being in a reform mode, the impact on training was generally consistent with where countries were on a continuum of implementing full inclusion.

Overall, this survey suggests that because of the implementation of educational reforms in many countries, dialogue among countries around teacher training for full inclusion can be extremely useful. Sharing practical and theoretical strategies can serve to further the global interest in achieving a fully inclusive society that is clearly of concern to each of the participating nations.

Table A1.6. **Training outcomes and in-service requirements**

	Belgium	Canada (New Brunswick)	Denmark	Germany
Assessment of teacher training	Internal by university or college External by government – meta evaluation independent experts	Practising teacher has faculty supervisor Written tests	Involvement of trained teachers. Examiners Practical tests	Written, practical and oral testing, external examinations by government. Phase I, through university staff and officials, Phase II through an official staff of teacher trainers
Assessment impact on training programs	Too early because decree on colleges of higher education only recently in force Adjustment is the responsibility of educational institutions	Co-operating teacher program – teacher receives adequate and appropriate feedback for skill development	Knowledge of the students Making targets Working out education plans Co-operation with parents Motivation of the students	Requirements and assessment outcomes are the basis for planning training programmes
In-service requirements	Increasingly the responsibility of the schools. Extent determined by resources of schools and teachers' commitment	No systems requirement but many do attend in-services offered by school district of province	Many activities – locally as well as regionally	Required in general but implemented on voluntary basis only, special institutions offer a wide range of all kinds, regular teachers are asked to attend on themes of inclusive education and special education

Table A1.6. **Training outcomes and in-service requirements** *(cont.)*

	Hungary	Ireland	Italy	Netherlands	Norway
Assessment of teacher training	Curricula and training submitted to higher education authorities Written and practical exams Committee of Hungarian Accreditation Board of Universities and Colleges visits and evaluates	Written and practical tests External examiners	N/A	By inspection Involvement of experienced teachers in the field of special education Self-evaluation External evaluation	Examinations and practical experience
Assessment impact on training programs	Training continually revised	Staff review assessment outcomes and use them in planning	N/A	Yes	Results of exams may modify programs.
In-service requirements	N/A	Voluntary for all teachers. Wide range offered, especially in summer	N/A	Not required, but happens on a voluntary basis	1997 new curriculum for primary and lower secondary school. A plan to put curriculum in place includes in-service.

Table A1.6. **Training outcomes and in-service requirements** *(cont.)*

	Sweden	Switzerland	United States
Assessment of teacher training	Universities have their own assessment National Agency for higher Education also carries out assessments.	Supervision by a laymen from district school board and canton inspectors;	Many states require teacher candidates to complete an objective, written exam in addition to completing an approved programme of study prior to receiving a licence to teach; Accreditation organisations typically emphasise teacher education process over outcome measures.
Assessment impact on training programs	A continuous assessment contribute to adjustment of teacher training programs at the university level.	No formal feedback but informal bodies where issues are discussed;	Most impact in terms of programme refinement. State legislatures have become more involved in prescribing content in teacher preparation because of public discontent with teacher quality. Increasing visibility of national level accreditation and teacher standards is a result of looking for ways to leverage change and improvement in teacher preparation in general and special education.
In-service requirements	Schools my order special education course for their staff. Supplementary training developed in co-operation with employers and organisations for the disabled.	No requirement other than for regular teachers. Special teacher training institution regularly offers courses for special teachers;	Most state credentialing systems have some requirement for continued teacher growth. Typically, teachers reapply for licences every 5-7 years and receive updated licences based on the number of university or continuing education course credits received.

Appendix 1.1

CERI/OECD Study on Training Teachers to Work with Children with Disabilities

One of the elements of the current CERI/OECD study on the integration of disabled children into mainstream schools is concerned with the training of teachers.

The central aim of this part of the research is to collect country (or state or regional) level information on national polices, legislation and guidelines as well as curriculum requirements for teacher preparation for working with children with disabilities.

Information, from a wide range of sources would be valuable. For example, from interviews or surveys of key informants such as government officials responsible for higher education, academic leaders in the field, and representatives form professional associations. Written sources such as background documents and materials, and copies of training curricula also may be useful.

Subsequent to the meeting in Washington in May we have identified the following key questions that are pertinent to both primary and secondary school levels.

We have tried to keep the number of questions as low as possible in order to prevent this task from becoming too onerous. In order to keep to our timetable it would be very helpful to have your replies by July 30th at the latest.

We apologise for asking for yet more of your time, but we feel that teacher training is too important an issue in helping to support the move to integrate disabled children not to include information on it in our overall report.

A. General

Given the recent moves towards inclusive education, what planning has your country undertaken in the field of teacher preparation (eg. in terms of financial resources, time set aside for teacher development, information technology etc.)?

Please describe particularly innovative strategies which your country has used that seem especially effective for advancing inclusive education; Please describe these strategies if you can, or give the name of a contact person who we can contact.

B. Structure of teacher training

PLEASE GIVE DETAILS FOR PRIMARY AND SECONDARY SCHOOLS

1. *Regular teacher training*

Please describe the following:

What are the settings for training (university, special colleges etc.)?
What are the entry requirement for training programmes?
What is the length of training (*eg.*; number of years)?
How much practical experience is required as per cent of total training?
How are the teachers credited?
Who has the jurisdiction for licensing the teachers?
Does the license need updating?

- If so how often? Is it a mere formality?
- Is there in-service education for teachers in your country?
- For regular education?
- For special education?

2. *Special education training*

PLEASE GIVE DETAILS FOR BOTH PRIMARY AND SECONDARY TRAINING

Please describe the following:
Is there specific special education training?
What are the settings (university, special colleges etc.)?
What are the entry requirements?
What is the length of training?

Are there speciality option (*eg.* learning disabilities, emotional disturbance)?

Please list them:
Is practical experience required?
What percentage of the course does this take up?
What sort of certification is obtained?

C. Demographics of teachers prepared in special education

1. *Primary school level*

Please provide information on the following if known:
How many special education teachers are trained annually?
What percentage are women?
What percentage have disabilities?
What percentages are trained in the various speciality areas identified above?

2. *Secondary schooling*

Please provide information on the following if known:
How many special education teachers are trained annually?
What percentage are women?

What percentage have disabilities?

What percentages are trained in the various speciality areas identified above?

D. Training content

Are there requirements for certain skills to be learned during teacher training?

- If so what are they?

What are viewed as the most important skills to be learned to meet the diverse needs of children with disabilities in the classroom? What are the related training strategies used to prepare teachers with there skills?

How is knowledge and practice about inclusion of children with disabilities in all aspects of life incorporated into teacher preparation?

- For regular teachers?
- For special education teachers?

How is teacher preparation influenced by outside groups such as advocacy groups, parents, etc.?

E. Training outcomes

How is the quality of teacher training assessed in the area of disability (*eg*; by inspection, involvement of trained teachers, external examiners, written and practical tests)?

How have the results of quality indicators or assessment outcomes been used to modify teacher training programmes?

- For regular teachers
- For special education teachers

F. In-service training

To what extent is in-service training required of special education teachers to keep their skills up-dated? Please give details.

Thank you for completing this survey for the CERI/OECD.

Peter Evans and Phyllis Magrab

Annex 2

Training professionals to work in inclusive settings

Phyllis Magrab

Background

Lying behind the successful inclusion of students with special educational needs (SEN) in mainstream schools, are the issues of professionals working together and the greater co-ordination of the various services involved. This chapter focuses on the elements associated with the training of professionals from different services to meet the demands of inclusive schools, and the students with SEN and their families. In these settings the educational needs of disabled students cannot clearly be differentiated from those of disadvantaged students and in this chapter the discussion applies to those students with SEN in general.

Because of the complex nature of support given to students with special educational needs and their families, no single professional discipline can stand alone to solve the problems. The complexity of the underlying, contributing factors to special needs status and the way these manifest themselves requires input at the service level from a range of professionals including educators, social workers, physicians, nurses, and other allied health professionals. For service providers, lack of knowledge of each other's goals; lack of understanding of the totality of resources in the community; and, at times, unresolved or incompatible differences in educational, social service, and health approaches to care impact negatively on how services are delivered to these children and their families.

To be more effective, these professionals must understand the needs of these children and their families in the broadest possible framework as well as how to co-ordinate their efforts with professionals from other disciplines. For example, teachers should be able to provide not only the appropriate and necessary learning for general education and specific skill building but do so with an understanding of the various external stresses these children are experiencing. They should understand how to have access to other professionals in addressing these matters. Social workers, dealing with the various family stresses, must be knowledgeable about supportive community services; link families to these services such as health, substance abuse, and other related resources; and, especially, be in contact with the schools. Physicians, nurses, and allied health professionals who provide health supervision and specific services in relation to special health needs and disabilities must not be in isolation from teachers and social workers as they make their plans.

For these service providers to work together effectively, the concept of a team approach to planning and decision-making represents the most promise for reducing fragmentation and enhancing good communication among professionals and with the families they serve.

Shared information, co-ordinated planning and decision-making, and co-operative service development lead to more effective teaching and support services for children with special needs and their families.

Importantly, the best intended service providers cannot effectuate co-ordinated approaches to care without the understanding and support of supervisors, programme planners, and policy makers. Policies for implementing the educational and human service systems must reflect these same concerns of reducing programme fragmentation and increasing co-operation and collaboration across all agencies to promote change at the service level.

Clearly if service integration is to be achieved, steps must be taken at all levels of the service delivery system. Practitioners, teachers, programme planners, and policy makers must see a common goal of providing services to families in a coherent, co-ordinated way that allows for maximum communication and understanding. Policies developed at the national level have critical implications for how individuals at the local level can implement programmes. Both vertical and horizontal co-ordination are essential to have a smooth functioning system for students with special needs and their families.

Multidisciplinary training for inclusion

If there is agreement that effective inclusion depends, at least in part, on the meaningful collaboration of professionals, then it is extremely important to establish professional training mechanisms to accomplish this. Unfortunately, few professionals are adequately trained to implement or work in or with inclusive schools. Establishing training opportunities is therefore critical. This implies developing values, attitudes, and specific skills for professionals preparing for direct service or teaching roles, service planning careers, or policy development positions.

The interaction between training and outcomes in service delivery is complex. Persons trained in new approaches can influence the system in positive ways as they become employed in it or they can become frustrated by systems unwilling or reluctant to change. On the other hand, an enlightened set of policy makers and service planners can influence training curricula by creating the demand for a new type of trained individual with skills that currently are not taught and support positive changes at the direct service level.

Individuals select careers based on their expectations of having particular roles and responsibilities in the work force that require utilising a set of skills usually acquired during their professional training. The initial training for the human service and education professions not only develops these skills but sets the tone for the professionals' expectations of their roles in the service delivery system. If the concepts and skills needed for effective co-ordination are not embraced as part of professional training in each of the disciplines, then these future professionals will not have the expectation that cross-professional collaboration is part of their responsibilities.

The impact of professionals' skills on working in inclusive settings is great. One of the established roles of training is the preparation of individuals to perform specific functions in their jobs. In this case, it is essential that professionals are trained in those specific functions so that they can work to support inclusion. The related attitudes, knowledge, and skills that could be incorporated in professional training would include understanding the concepts of inclusion and service co-ordination, learning how to work on teams, understanding the roles of other professionals, and learning how to co-ordinate services for families at all levels.

Training is our most important vehicle for creating a work force that is compatible with the goals of inclusion, and in all the professions, there is a need for curriculum development as well as formal and informal training opportunities at pre-service and in-service levels.

Purpose of the study

In the light of this background, the aim of this multinational study is to identify and compare the extent to which multidisciplinary training of professionals is incorporated into national efforts related to the problems of students with SEN, and to identify and compare a range of innovative and effective programmes.

Member countries were invited to gather information about their current multidisciplinary training capabilities including country (or state) level information and exemplary programme descriptions. Canada (Alberta, New Brunswick), Finland, France, Italy, the Netherlands, the United Kingdom, and the United States elected to participate.

National and programme level information was collected and analysed. Participating countries completed national level and/or programme level questionnaires (see Appendix 2.1) utilising interviews and written documents. At the national level information was gathered reflecting the broad context in which professional training programmes are provided including relevant government legislation and policies, national guidelines and recommendations for professional training, and the broad structure of national professional training systems.

At the programme level brief descriptions of a small number of innovative multi-disciplinary professional training programmes were provided with the intent to include examples of both pre-service and in-service training. The training of teachers, also, was expected to be a prominent feature of at least some of these programmes. The information collected on professional training covered four key areas: the background to these programmes; their resource inputs; their character of these programmes, including curriculum and content; and the outcomes of training for trainees, programme providers, service agencies, and clients.

The effect of national policies for service delivery on multidisciplinary training

In the countries participating in this study, various recent national policies have impacted on the way services are delivered to special needs students and their families. In many countries, an increased recognition of the complex and diverse needs of these students has fostered policies that imply co-operation and co-ordination among service providers. As a result, in these countries, there are nationally initiated programmes supporting a co-ordinated approach to service delivery. The development of a number of multidisciplinary training efforts has been directly related to these changes in national policy for students with special needs, because of the lack of a well trained work force. These multidisciplinary training programmes aim to have professionals understand the concepts of working in inclusive settings, to value each other's roles, and to learn how to co-ordinate their services effectively.

Unfortunately, specific stated national policies regarding standards or implementation of multidisciplinary training of professionals rarely exist. The United States is exemplary in recognising at the national policy level the need for cross-training among disciplines. Through the Developmental Disabilities Act, the University Affiliated Programme for Individuals with Developmental Disabilities has been implemented in almost all of the states. This act articulates an interprofessional training goal to serve individuals with developmental disabilities and their families in a co-ordinated way. It establishes interdisciplinary training programmes in universities across the country to train individuals from multiple disciplines at the pre-service level as well as standards for multidisciplinary training.

There are some good examples of multidisciplinary training that have emerged naturally as a result of the national policy changes related to service delivery. For example, in order to address the problem of educational disadvantage, the Dutch government has pursued a comprehensive Educational Priority Policy since 1986. Schools that have a high percentage of educationally disadvantaged students are given additional resources to support joint activities with other agencies. In 1993 these policies were incorporated into official educational legislation, the Primary Education Act and the Secondary Education Act of 1993. The multidisciplinary training of managers for this effort was implicit in the process. The National Pedagogic Centres played an important role in developing organised training programmes that were implemented up until recently. Although currently there are no longer formalised training programmes for the managers, thematic meetings occur for targeted training issues.

Similarly, in France, Zones of Educational Priority (ZEP) were established in 1981 and redefined in 1991 to provide additional resources to schools that have high concentrations of children at risk and to develop partnerships between health, educational, and cultural services. As a result, various zones have established joint training activities for the professionals working with the children in the zone.

In the United Kingdom, the Children Act of 1989 lays the foundation for multidisciplinary work now being developed in education action zones. This act required joint activity to provide an integrated range of services and partnerships with families. It brought together the legislation concerning the care and upbringing of children in private and pubic law promoting partnerships between local authorities and parents, and among the various local authority departments over the care for children "in need". This act led to a variety of multidisciplinary training activities.

In Italy, in 1990, the Italian parliament authorised a law for drug prevention that has formed the basis for much of the regional multidisciplinary service and training efforts in the regions. Additionally, for children and youth with HIV, national policies approved by legislation in 1990 have spawned multidisciplinary service and training programmes at the regional and local level. Interestingly, some of these HIV efforts have been co-ordinated at the national level to establish "train the trainer" programmes, courses, and materials for educators and school health professionals.

Effects of decentralisation and local initiatives on multidisciplinary training

A very important feature of current national policies related to special needs students is the trend towards the decentralisation of services in all systems: education, health, and social welfare. This political trend coupled with the absence of national policies for multidisciplinary training has had a very significant influence on the development of multidisciplinary training efforts. In the positive sense, when training efforts are developed locally, they tend to be closely aligned with the local needs; on the other hand, the lack of a national standard creates a great variance in opportunities in different regions of the same country and mitigates against establishing a national capacity for meeting the service needs.

A number of countries articulated the effects of decentralisation policies on the development of their training capabilities. For example, in the Netherlands, where the trend towards the decentralisation of health and welfare care was initiated many years ago, the framework of decentralisation of government policies for youth has placed greater responsibility on provincial and local authorities. As a result there were 12 local experiments of integrated youth policy from which a variety of training efforts and materials evolved. Currently, experimental courses are being developed in several universities in the Netherlands for civil servants whose task will be to implement youth policies at the local level.

In recent years, Finland has decentralised its administrative system, as well, and decision making is at the local level; thus, they indicated that detailed information about individual training programmes, particularly of an in-service nature, is not available; yet, the programmes clearly exist and are organised by education, social, and health authorities.

In Italy, 28 provinces have been participating in an integrated service activity for children at risk which is supported by the Ministry of Public Instruction. Primarily, these efforts take place in the provinces where there is considerable autonomy at the local level. Since all fiscal support for these training activities is at the local level, there are vast differences in the ways the different provinces have implemented the programme and have incorporated training activities.

Similar comments were made in France with respect to the training efforts related to the local implementation of ZEP's where there are local variations, and decision making regarding training has led to considerable unevenness of provision.

In the Canadian province of New Brunswick, all the programmes that they identified as exemplary were described as local and ad hoc in nature. In Alberta, Canada much of the site-based training was connected to development and implementation of new community-based service approaches.

In the United Kingdom, an interactive effect of decentralisation was noted. The 1988 Education Reform Act created a major upheaval in the education system with much of the authority for managing the educational system becoming even further decentralised from the local authorities to individual schools, a trend noted by several other countries as well. Thus each school sets its own priorities with respect to training and only a small amount of funds are held at the local educational authority level for this purpose. Multidisciplinary training is not a typical priority for schools, especially in the face of major curriculum changes that have occurred that require additional training for the teachers. So while there often are multidisciplinary training activities related to students with SEN organised at the local level, especially by area child protection committees with respect to child abuse and neglect, teachers appear rarely to participate because the schools will not provide the teachers with release time.

Organisational strategies for implementing multidisciplinary training

For the countries participating in the study, with the exception of the US, the impetus for multidisciplinary training related to special needs students clearly has not come from centralised national training policies. None of the countries participating in the study had an articulated national policy that could serve as a basis for organising multidisciplinary training efforts. Countries such as the Netherlands and Italy expressed the need for a more coherent national policy. The responsibility for developing and organising such multidisciplinary training programmes has fallen to universities, professional organisations, national commissions, and local entities without a national policy mandate.

Traditionally *universities* are the locus of professional training; yet, few have embraced a multidisciplinary approach for training professionals working with special needs students. At best, departments may include issues from other disciplinary areas in their curriculum. For example, several of the countries participating in the study indicated that teacher training will include course content in related areas such as health and social issues and guest faculty may teach those elements of the courses. But the multidisciplinary nature of the overall training for professionals is a low priority.

In the United States, the University Affiliated Programmes for Individuals with Developmental Disabilities, mentioned earlier, represents a network of universities that have been dedicated to interprofessional training for over three decades. From this network have emerged disciplinary training guidelines, interdisciplinary courses, and interprofessional training standards. The Georgetown University Child Development Centre is an example of such a programme. It was established through the Developmental Disabilities Act but is supported by grants and initiatives in health and education as well. A core group of trainees from ten different health, education, social service, and allied health professions have course work, clinical practice, research opportunities, community out reach experiences and policy related experiences at the pre-service level. An interdisciplinary faculty implements the training curriculum and direct service programme for children with disabilities in an interdisciplinary manner. Trainees learn about each other's disciplines, develop co-ordinated service plans for children and their families, and gain an understanding of the concepts of full inclusion.

Interestingly, in Italy, when the university representatives in Turin were brought together to respond to the relevant components of this study, besides discussing the various limited informal collaborations that existed, they were inspired by the possibilities of the dimensions of multidisciplinary training that were raised by the study questions. This serves as an indication of the lack of awareness of the need for training to work in integrated service systems and of leadership to accomplish it.

In the Netherlands a training course for policy makers for Urban Educational and Integral Youth Policy is provided by the Department of Education Sciences of the Amsterdam College of Higher Education. In response to current needs for more comprehensive, integral approaches in policy and practice, this college has developed this two-year training course, leading to a Master's degree in Urban Education and Youth Policy. In this course students/practitioners (welfare workers, social workers, health professionals, psychologists, etc.) and policy-makers are taught to take an active and innovating role in analysing problems and designing proposals for institutional strategies and policies.

In the Netherlands and the United Kingdom, the Amsterdam College of Higher Education and the University of Nottingham (UK) have set up a European Network dealing with the improvement of research, policy and practice in urban education and integral youth policy. Since 1993, these institutes have offered a common Masters of Education programme that is provided in several European cities. Students/practitioners, policy-makers and teachers of the participating institutes share their knowledge and experience. New partners have joined the network (Copenhagen Business School, University College Dublin, University of Nantes, the German Youth Institute in Munich, University of Ghent, and several Spanish and Portuguese universities). The joint M.Ed. degree course is concerned with issues involved in the development of educational and youth policy in cities and large urban areas. Interprofessional training and support are fundamental to the approach of the programme. The programme is comprised of four modules; one of the modules focuses on integrated approaches and comprehensive strategies at the national and city level related to preventive policies for the pre-school period, drop out prevention for specific target groups, and reducing and preventing youth unemployment.

These represent rare examples of university based multidisciplinary training programmes. Countries have indicated that there may be a competition for funds that prevents different departments from collaborating on training endeavours. Also, the developmental pace, objectives, and programme strategies of the various departments may be significantly different.

There are more examples of informal collaboration with universities for in-service training. For example, at the in-service level, in the United Kingdom, the National Society for the Prevention of Cruelty to Children (NSPCC) has an effort called Promoting Interagency Training (PIAT) with Nottingham University and Sheffield University that is an example of training networks of trainers through an informal relationship with the university community.

In the Netherlands, as a consequence of decentralisation trends in government policy, with the completion and the evaluation of a number of national experiments in the field of local integral youth policies, a growing amount of material is becoming available that can be used in the training of policy-makers who need to enhance their expertise in order to carry out their new tasks. The Association of Dutch Municipalities (VNG), the National Institute for Care and Welfare (NIZW), provincial welfare agencies and College of Higher Education are currently involved in the development of training courses for policy-makers whose task it is or will be to initiate integral youth policies at the local level. These experimental courses are being developed in several places within the Netherlands. Courses generally consist of a series of study meetings where participants acquire and improve the knowledge and skills they need for their new tasks.

The role of professional organisations

Much like universities, *professional organisations* have played a limited role in motivating the development of multidisciplinary training programmes and developing practice standards that would require this type of training. For example, the Dutch indicated that the distance between national organisations was too large to enable them to be effective.

A survey of professional organisations in the health, mental health, social service, and educational fields in the United States was conducted as part of this study. The results indicated that only the fields of social work and special education required any interdisciplinary training as part of their credentialing process. All the other fields indicated that service integration and multidisciplinary training issues were not yet a part of their accrediting processes.

In the United Kingdom, professional organisations now play a collaborative role in exploring the generic issues of interprofessional training through a very unique organisation called the Centre for the Advancement of Inter-professional Education in Primary Health and Community Care (CAIPE) which is the only interdisciplinary professional organisation identified in this study that focuses specifically on interprofessional training. This organisation has its roots in the changes in primary health care that required professionals from the social service area to work with general practitioners. These early professionals started CAIPE. The first conference held by the group involved professional organisations in social work, nursing, medicine, and physiotherapy.

The aims of CAIPE are to promote development, practice, and research in interprofessional education through organising conferences and regional meetings, promoting research and evaluation, distributing regular information, and producing publications. CAIPE emphasises the belief that interprofessional education is an essential means of achieving collaborative approaches to services which require of professions the "will to work together and share, to give up exclusive claims to knowledge and skill, and to recognise that sometimes another professional's skills are more appropriate to meet a particular need." It is a membership organisation open to all professionals on an individual or an organisational basis. Unfortunately they have had great difficulty getting the education profession fully involved.

Now CAIPE sees itself as having a major role in influencing professional organisations to achieve interprofessional education. Currently in the United Kingdom professional bodies in social work, psychology, nursing, and other disciplines are setting up working groups on interprofessional training. CAIPE is bringing together representatives from these groups with the intent of developing a training module that will be accepted by all of them.

In at least one country, a *national commission* has played an important role in linking multidisciplinary professional training with preparation to work in integrated service settings. In the United States, the Commission on Leadership in Interprofessional Education (CLIE) grew out of discussions during a 1990 symposium sponsored by the American Association of Colleges for Teacher Education, the American Academy of Paediatrics, and the U.S. Maternal and Child Health Bureau, hosted by Georgetown University Child Development Centre. The symposium provided a forum for representatives from the health and education professional communities to explore innovative approaches for service integration for children with disabilities and to develop collaborative guidelines for future efforts. In 1992, under the aegis of the American Association of Teacher Education, this National Commission on Leadership in Interprofessional Education was initiated with over 50 partners from professional organisations and the practice community of social work, public health, law, criminal justice, psychology, medicine, theology, and education. The commission focuses on interprofessional preparation at both the pre-service and in-service level to bring the best practices with children and families into university missions and programmes. The intent is to support the preparation of a new generation of interprofessionally oriented leaders in health, education, and social work.

As a result, with funding from the U.S. Maternal and Child Health Bureau, demonstration projects for multidisciplinary training of professionals were designed. One of these, Healthy Children Ready to Learn, is both a demonstration service integration project and pre-service/in-service training project serving culturally diverse families special needs students in Oahu, Hawaii. It links its service model with university based training programmes for paediatric and obstetric residents and doctoral programmes in education and social services. A second project at the University of Oregon assists selected colleges and universities to develop educational offerings that will provide multidisciplinary training for their students to work in integrated service systems. Ten colleges and universities were selected to alter their curriculum to provide this training based on the best practices found in the community for integrated services.

But clearly the findings from this study indicate that the large percentage of multidisciplinary training has been organised at the local level through *local organising structures*. Most of these efforts are described by the countries as ad hoc and lack both a permanency and transferability. Almost always these training endeavours are at the in-service level. Details of such efforts are described in the subsequent section on in-service training.

Specific components of multi-professional training for inclusive education: ideal vs. actual

At the heart of training professionals to serve students with SEN and their families is establishing a framework that incorporates developmentally based, family-centred, culturally respectful principles of care and that values a co-ordinated system of services. Such a framework includes training at several levels: awareness and orientation to concepts, knowledge and skill development, and skill application and transfer. There is a definable content that can form a concrete curriculum applicable to all the disciplines involved with special needs students and their families. Additionally, there may be specific training implications for educators as opposed to health and social service professionals. At minimum, key curriculum and training elements for implementing a co-ordinated system of services for students with SEN include the following:

- knowledge of concepts of inclusion and service co-ordination at all levels (policy, programme, and practice);
- knowledge of the roles of the various disciplines who serve students with SEN;
- preparation for functioning as an effective team member (at the service as well as the planning level); and
- preparation for co-ordinating services for the family.

Underlying each of these curriculum areas is the intent to shape the attitude and values of the trainees by imparting the significance of interdisciplinary training and service. Since these concepts are at the heart of the study, it is important to elaborate on their scope.

Knowledge of inclusion and service co-ordination (policy, programme and practice level)

To develop an understanding of inclusion and service integration at all levels - policy, programme, and practice – includes an appreciation that diversity exists among students with SEN and their families as well as among the programmes and agencies who serve them. Within the service system there can be differences in mission, scope, eligibility, and expertise of personnel. Understanding the implications of this at all levels – policy, programme, and practice – is basic to learning about inclusive education and service co-ordination.

How agencies set goals, share information, plan joint programmes, and develop common procedures and policies are important areas for training. Effective service integration models can be studied. This includes understanding policies at both the national and local level that support co-ordination, the role key individuals and groups play, and the specific programmatic methodologies utilised. Appreciating the relevance of domain similarity, task specialisation, and inter-unit communication in these models is another important element of training. The difficulties that arise in relation to achieving co-ordinated or joint efforts also can be examined including issues of confidentiality, incompatible data sets, and regulatory policies.

Knowledge of the role of the disciplines serving special needs students

At the programme planning and service level, developing an understanding of the vital roles of the various disciplines who serve special needs students and their families is critical. Training should address both the unique contributions of each of the disciplines, in particular education, social work, medicine, nursing, and allied health professionals as well as each one's overlapping capabilities. These can be described by diagnostic, treatment, and prevention responsibilities. In training, identifying one's own discipline's role in the prevention and intervention process and using other disciplines by appropriate referral are necessary skills to be developed.

Preparation for team membership

Preparation for team membership has implications at both the planning and service level. Whether we are speaking about a team of professionals who are working towards agreeing on a common service plan for a child at risk and his or her family or about a group of policy or programme planners from various agencies who are working towards agreeing on a common action plan for developing and implementing services, the basic skills of effective team membership apply. The goal in training is to prepare individuals to function as part of a group of professionals who co-operate in decision-making and implementing the decisions made.

Building cohesion, commitment, and respect in such groups or teams form the underlying elements of the training needed. This training requires a knowledge of how groups work on their task and an understanding of the interrelationships among group members. Co-operation, consensus building, and conflict resolution are key skills. There are existing models that can be incorporated in training for developing these skills. Such models train in facilitating communication, problem solving, and implementation of decisions. Through these models, skills can be developed for sharing information, active listening, engaging in group problem solving, and giving and receiving feedback. Behaviours that impede group work such as competition, interpersonal conflicts, lack of leadership, changing group membership, lack of commitment, unilateral decision-making, and territoriality (unwillingness to acknowledge the roles and responsibilities of others) can be understood. Importantly, preparation for leadership of such teams is included as well.

Preparation for co-ordinating services for families

Learning how to co-ordinate services for special needs students and their families, often called "case management", begins with recognising that families are partners in this process. For this reason the term, "case management", in some localities, is dropping out of use. This change in name implies a change in philosophy as well. A family-centred approach to co-ordination implies that families are no longer "managed" but, rather, participate in decisions and, as needed, are assisted by professionals with accessing and co-ordinating services. The professional's role in co-ordination of services in this context builds on family strengths and acknowledges family preferences. It may change as the needs of the family change.

Preparation for a role in service co-ordination is not limited to any single discipline. All professionals working with special needs students can develop skills in assisting families to identify their concerns, priorities, and resources and learn to co-ordinate the services needed. Based on the particular circumstances, different professionals may be called upon to play this role to a greater or lesser extent.

Service co-ordinators need to know about the assessment and evaluation possibilities of the various disciplines (their purpose, cultural appropriateness, etc.), resources available, how to co-ordinate resources, and how to deal with transitions, such as from school to work. Preparation for working with families to co-ordinate their services must include learning how to negotiate the infrastructure of services available for children at risk and with disabilities and their families. Models exist that demonstrate how services can be co-ordinated, monitored, and evaluated that can be incorporated into training programmes.

These four areas are:

- knowledge of concepts of inclusion and service co-ordination at all levels (policy, programme, and practice);
- knowledge of the roles of the various disciplines what serve special needs students;
- preparation for functioning as an effective team member (at the service as well as the planning level); and
- preparation for co-ordinating services for the family.

While these four areas represent ideal elements of an organised curriculum for multidisciplinary training for professionals to work in inclusive settings, it was strikingly evident in this study that there were few training efforts that systematically addressed these components.

The lack of attention to this type of conceptualisation at both the pre-service and in-service level may be tied to the low priority given to this type of training. For the most part the content of training endeavours was idiosyncratic and tailored to meet specific needs. Although all the training efforts touched on one or more of these elements, few curricula such as those of the University Affiliated Programmes in the United States were found.

Settings and strategies for training professionals for inclusive education

There are multiple strategies for training professionals to function in inclusive systems for children with SEN. Some of these approaches involve teaching within individual disciplines and others involve joint training possibilities; some are at the pre-service level and others, at the in-service level. The general teaching elements described above form the basis for such training although, as noted above, rarely are achieved.

As the Dutch indicted in their report, in theory it is easy to list strategies and approaches to strengthen interprofessional preparation to work in inclusive systems; in reality, it is difficult to adopt these approaches. Curricular attention to this aspect of training is low; competing demands of other programmes and courses is strong; and the history of trying to solve problems within one system militates against these types of multidisciplinary training programmes.

Pre-service training

Pre-service training, particularly, has a strong influence on the belief systems of the professionals trained. If values of respecting families, culture and professional differences, and collaborating with other professionals in the decision-making process are not a part of the initial training of professionals, it is difficult to establish these at a later time. The attitudes professionals hold towards each other's disciplines and service co-ordination are strongly influenced by training experiences.

Perhaps the single most important issue at the pre-service level is getting disciplines to recognise the need for establishing a curriculum in service co-ordination. But this alone does not guarantee inclusion of this curriculum in overall training programmes because there are so many competing demands. Until this is accomplished in all the relevant disciplines - education, social work, psychology, medicine, nursing, and allied health professions – we will not have an adequately trained work force to achieve a co-ordinated service delivery system.

At the pre-service level, such a curriculum can evolve through didactic teaching and practicum experiences. This implies faculty preparation to teach the essential content areas, the participation of other disciplines and families in this teaching, and joint training opportunities.

To develop joint training requires leadership and administrative support within the higher education system. For example, in teacher training and educational administration programmes, this involves reaching beyond the professional boundaries of Schools of Education and taking leadership at administrative levels to bring together other professional training programmes in social work, psychology, medicine, and nursing in order to explore common training goals and develop joint activities. This implies an identified commitment at the highest levels of administration within each of the higher education entities which has been difficult to achieve.

Few examples of comprehensive pre-service multidisciplinary training programmes were identified by the countries participating in this study. To date, most pre-service training efforts involve incorporating content from other disciplinary areas into disciplinary courses.

For example, in Finland the special education curriculum includes many study units which are multidisciplinary and aim at professional co-operation and self-knowledge with special emphasis on co-operation with parents, social service, and health care. In New Brunswick, Canada, teacher training programmes permit other disciplines to take their courses. In Alberta, Canada, the teacher training programmes in the three major universities provide specific multidisciplinary courses at the graduate and undergraduate level such as an Interdisciplinary Seminar on Early Childhood Services. With respect to teacher training, it is encouraging that in some countries, such as the Netherlands, there is a context of upgrading teacher training from which multidisciplinary training might evolve.

One of the most innovative programme at the pre-service level is the DeWitt Wallace Reader's Digest Fund programme which promotes collaboration at the university level between Colleges of Social Work and Colleges of Education in the pre-service education of their students. A National Centre for Social Work and Education Collaboration, housed at Fordham University in New York City, used the strategy of awarding a three-year grant to develop collaborative educational programmes to one university having both a College of Education and a College of Social Work, in each of the nine designated regions of the US Department of Health and Human Services. The goal is to develop examples and models of co-operating to provide future educators and social workers the academic foundation needed for professional collaboration in the public school setting. For example, at the University of Houston, for teacher training, students are assigned to public schools where they have most of their university classes on site. They also obtain practice teaching experience along with masters level social work students who participate in practice internships during each of four semesters. In other instances, both education and social work students are assigned to joint educational activities specifically designed for them including a seminar focusing on topics such as team building, confidentiality and other ethical issues, understanding the cultures of the pupils, parent involvement, parent education, stress management, care of the professional, and crisis intervention. Several of the universities funded through this project have developed new courses related to collaboration or have enhanced existing courses with more content about collaboration and multidisciplinary issues.

In-service training

There are at least two important reasons to establish in-service training opportunities related to inclusion and service co-ordination. First of all, there is a timeliness issue for service systems, the need to develop rapidly a capacity for co-ordinated service delivery through utilising the existing work force. To achieve this, professionals in the system must develop new attitudes as well as expanded knowledge and skills in service co-ordination. A second, equally compelling reason for in-service education, is that service systems for special needs students are constantly evolving and professionals working towards achieving integrated service delivery must stay abreast of these changes as well as their implications for co-ordination.

In-service training can be either formal or informal. It can take the form of on-site in-service opportunities, professional association conferences and workshops, or multidisciplinary conferences and workshops. The specific elements for training may be addressed systematically or in parts. For those professionals who have neither an appreciation of the importance of service co-ordination nor the skills to achieve it, a well-organised continuing education experience may be very useful. The leadership issue of how to initiate such opportunities remains a question.

In the Netherlands they identified effective characteristics of leadership for in-service training. These include support of a national policy framework, strong management at the implementation level, strong links with the field, and the ability to provide adequate public relations activities for the effort. Successful courses are often well defined, relatively short, and highly thematic.

Several barriers to implementing in-service multidisciplinary courses were noted by most of the countries. One of the primary obstacles is attitudinal-valuing collaboration and recognising professional biases. A second barrier noted was protectionism - concern that other disciplines will infringe on one's expertise and "territory". A third barrier is related to timing and commitment of various agencies - concerns of staff time and allocation. Establishing common priorities for the training, at times, has been viewed as a difficult task. Yet, several countries noted that when multi-professional groups came together in a non-threatening environment for training, quite frequently these barriers were overcome and much more interagency co-operation occurred.

A variety of in-service activities were described by the participating countries. Examples of effective programmes have been grouped into the following types of strategies and settings: train-the-trainer programmes, local site based programmes, innovative service programmes with multidisciplinary training components, short term or single event topical training programmes, and institute or bureau based training.

Train-the-trainer

A train-the-trainer model for in-service education is an effective mechanism for reaching a large number of individuals through a limited initial effort. Several countries indicated the utility of such a mechanism. For example, in the United Kingdom, to meet the specific needs of those involved in interagency child protection training, the National Society for the Prevention of Cruelty to Children developed a training project, Promoting Inter-Agency Training (PIAT) to empower and foster the development of interagency trainers by focusing on issues specific to their roles. These efforts were in collaboration with Sheffield University and the University of Nottingham. The first workshop in 1994 generated ownership of interagency strategies and a value base for interagency work. The two day residential course promoted networking among trainers and led to a second workshop in 1995 to further the development of a vigorous network of child protection trainers, to consider the role of standards in inter-agency training, to debate draft standards developed by a PIAT working group, and to consider methods to measure effectiveness of training.

Local site-based training

Several countries cited the importance of ongoing training for teams that were engaged in implementing service integration approaches. In some instances the training was developed in a formal way; in others, it was considered to be an integral part of the routine activities of the team to cross educate each other - a spontaneous work methodology.

For example, in Italy, as a result of the Ministry of Public Instruction's Project *Regione Puglia, Dispersione Scolastica*, which initiated integrated service delivery in the regions of Italy, the region of Puglia began a project on staff training for schools, local government agencies of health and juvenile justice, and all individuals in the area groups of the risk zones. Two interdisciplinary courses of three days duration were held in 1995. While the region was responsible for funding the courses, the *Istituto Regionale Ricerca Sperimentazione E Aggiornamento Educativi* (IRRSAE) was responsible for planning the various activities and workshops in co-operation with the locally based group. The goals of the training were to bring together workers from different institutions to overcome resistance and to build positive relationships and to plan the integrated projects. Headmasters, teachers, public instruction and social service chairmen, council social workers, court operators, staff of the public instruction local offices of the region, and others came together. The format included didactic and seminar sessions.

The group took as its action step the planning of the local service integration project. The training provided for an exchange of experiences and ideas and that was intended to build relationships in the region. The course brought a deeper awareness of the problems and solutions of school failure and school leaving and served as the basis for future team work. This paved the way for the continued view by the group that their ongoing work was, in part, continuing interprofessional training for all of them.

In the province of New Brunswick, Canada, a multidisciplinary training effort that is aimed at training provincial teams working with special needs students grew out of a formal policy or agreement that was reached between the Department of Education, the Department of Advanced Education and Labour, the Family and Community Service Division of the Department of Health and Community Services, the Mental Health Commission, and the Department of Human Resources Development along with the Department of the Solicitor General. These articles of agreement, which are based on a variety of understandings, include two important considerations for multidisciplinary training:

- that educators recognise that they alone cannot provide a complete array of services for students demonstrating behavioural disorders. Collaboration with parents and professionals from various government departments and service agencies is necessary to facilitate the learning process;
- all professionals at the community level, including social workers, psychologists, probation officers, mental and public health personnel, have a responsibility to collaboratively assist in the provision of services to the student and the student's family.

This agreement, signed in October 1994, has already resulted in a major multidisciplinary training programme being launched, the Youth Treatment Programme. A series of fourteen regional teams around the province composed of front line staff from education, social services, mental health, medicine, and corrections meet once every two weeks. The purpose or the role of these teams is to provide direct clinical care and also to provide a co-ordinating function. A provincial team of three clinicians provides the regional teams with expertise and training. The main educational approach is related to case management and teaching through hands-on teaching supplemented by didactic teaching as well through bi-annual conferences.

In Alberta, Canada, in 1993, five Alberta communities were asked by the ministers of the participating departments to develop new and better ways to provide services for children in need. This involved the commitment and collaboration of the provincial government, municipal government, community agency, school district and school levels. The multidisciplinary cross-training of participants in the development of new ways of meeting the needs of families and children has encompassed in-service training, team meetings, and sharing of physical locations to operationalise a shared vision. Another effort in Alberta, that emphasised a community based approach to supporting children and families, which grew out of the responsibilities of the Commissioner of Services for Children, similarly found the planning process to be a cross-training opportunity. The redesign of children's services was to include attention to community delivery, early intervention, Aboriginal services, and integrated services.

Innovative service programmes with multidisciplinary training

As innovative programmes are developed for special needs students, often there are accompanying training programmes for staff that may be multidisciplinary in nature. For example, in the Netherlands in Amsterdam, The Hague, Rotterdam, and Utrecht, for the period between 1993-1996, the Ministry of Health, Welfare and Sport (VWS) has made funds available for an experimental programme, the Extended Schoolday, to improve the achievement levels and the school careers of children from disadvantaged backgrounds, especially ethnic minority pupils. Associated aims include enhancing children's socio-emotional development and promoting cultural and social participation. The programme emanates from primary schools, in co-operation with welfare agencies and specialised institutions (such as music schools).

In 1994, STADE, a provincial services institute for welfare work which also organises the Extended Schoolday project in Utrecht, took the initiative to set up, together with the Hogeschool of Utrecht (an initial higher professional training institution), a multidisciplinary training course about the concept of the Extended Schoolday, inspired by the most recent developments in policy and practice. The course, six weekly sessions of four hours each, was developed in co-operation with HOF (an urban services institute for welfare work). Training sessions focus on the concept of the Extended Schoolday and the use of systematic, goal-oriented working methods in the delivery of after-school programmes.

Short term or single event topical training

A number of multidisciplinary training efforts that are of short duration and are related to specific topics of common concern across various professions were often cited by countries as examples of multidisciplinary training efforts. For example, in New Brunswick, Canada, "Teachers Helping Teachers: Problem Solving Teams at Work" is a multidisciplinary approach for the development of strategies for teachers and other professionals to use with students who exhibit unsuitable behaviours in the classroom. The training offers knowledge of the concepts of inclusion and services integration, how to prepare and function as an effective team member, and how to recognise the wide variety of individuals who might have solutions and strategies to offer for any particular case. A training booklet and a training video have been produced which are used to train school psychologists, teachers, guidance counsellors, social workers, parents and persons from other agencies who might be appropriate in an individual situation. One of the positive outcomes of this particular training event was that the model presented became the basis for a number of projects in the region for developing a more responsive school environment for the particular needs of children at risk.

Child abuse was often cited as a specific topic relevant and important for multidisciplinary training efforts. In the Netherlands, a multidisciplinary training course was developed in 1993, intended at first for this target group of youth care professionals and delivered by the NIZW (National Institute for Care and Welfare). In practice this means that these professionals from the fields of education, welfare, health care, and youth care, who are already working together in a neighbourhood network, together enrol in a training course in order to improve their diagnostic, problem-solving, and preventive skills with regard to child abuse. In 1994, 25 of these courses were given across the country. During the three training sessions the participants were taught how to communicate with the parents, diagnose the problem, and work with other agencies. In Alberta, Canada, modules of two days of training regarding the dynamics of abuse and ways to work collaboratively were developed to insure that key personnel have better skills in identification and referral.

Another example of short term topical training was in response to a School Board policy in New Brunswick, Canada that prohibited teachers from using aversive practices including corporal punishment, excessive use of time out, or use of chemical substances as a way of controlling children's behaviour. As a result of this policy, the school system had to institute a programme that would provide alternative ways for teachers and other professionals to control inappropriate student behaviour. The programme has been in place since 1989 and has provided training for teachers, bus drivers, administrators, custodians, guidance counsellors, parents, and social workers. The programme was planned and delivered by the school district with assistance from the Department of Education. Also involved in the programme were Department of Mental Health staff, social workers, and the Community for Residential Living Board. The programme provides mainly in-service education for professionals and lasts two days with brief refresher courses which may last an hour or two.

Institutes and bureaus for in-service training

Among its many professional training offerings, the Tavistock Clinic in London, England has conducted an interdisciplinary training programme since 1992 that relates to special needs students and child protection. The course ultimately leads to an MA degree, although not all participants remain in the course to complete a degree. There are three segments to the programme. The first year is designed to cover assessment, treatment, application and management issues, legal issues, and a young child observation. The second and third years include working with an abused child, literature reviews and research, tutorials, clinical options, and a dissertation. The content is approached from a multidisciplinary perspective using attachment theory as its base. The 20-25 participants accepted each year come from a variety of professions and are required to have two to three years of experience in the field of child abuse. In some instances agencies fund staff members to attend. The course has been validated by the University of East London.

In the Netherlands, the Instap bureau is a national bureau for the professionalisation and training of workers and agencies dealing with problem youth. The method "Working with Meeting Points" forms the basis for the methods, training courses, supervision practices, guidance strategies, and projects that have been developed since 1987. The emphasis is on the analysis of the social environment and an "outreach" approach towards the target group. Major methodological aspects include interdisciplinary co-operation at the field level between agencies and organisations dealing with individual youngsters. The training and guidance for the field is conducted during a five-day training course, taught to local and regional professionals working with youngsters ages 12 to 23 years or children ages 4 to 12. Participants come from all institutions and organisations that are dealing with these groups in their daily work, including teachers, social workers, youth workers, street corner workers, police officers, physicians, guidance officers, and placement counsellors. Using the *Helpen in eigen omgeving* method, the participants create a network of services based on the principle of interdisciplinary co-operation.

Financing of multidisciplinary training programmes

The financing of multidisciplinary training is accomplished through a variety of mechanisms. Since the great majority of training programmes are initiated at the local level and are in-service in nature, these programmes often are supported through regional, provincial, or local agency funds. Often a particular agency takes the lead in establishing a funding base for the activity with varying types of contributions from other agencies in the form of staffing, released time for participants, or direct budgetary input.

As the move to decentralisation has extended even further down to individual schools, determining priorities for training and having control of specific training funds, multidisciplinary training must emerge as a priority for the school, to be funded out of school budgets. As noted in England, this has not typically been a priority for schools because of competing demands for limited funds.

Often the regional budgets are a result of a national interest in a particular policy area such as in Italy; thus, resulting regional training efforts have a national origin. In very few instances has there been direct national funding of multidisciplinary training. The Commission on Leadership in Interprofessional Education (CLIE) in the United States is an example of national funding of multidisciplinary demonstration training efforts.

Charitable trusts and foundations, also, are a source of support for these efforts. In the United States, where there is a tradition of private support for training innovations, The DeWitt Wallace Reader's Digest Fund represents a good example of leadership in this area.

A number of efforts have been financed through direct tuition to support the costs of the training endeavour such as the PIAT programme and Tavistock programme in England and the Urban Educational and Integral Youth Policy training programme in the Netherlands. At times agencies will pay for the cost of their staff members participating in such training programmes.

In one instance membership fees were noted as a way of sustaining a major organisation devoted to developing and offering multidisciplinary training programmes. CAIPE in the United Kingdom accomplishes some of its training tasks through membership fees.

One of the striking findings of this study was that more often there were no specific training budgets identified to accomplish the needed training; training resources were usually extracted from pursuing the general requirements of a service effort or from participant support.

Policy Implications

Reforming systems and professional practice for special needs students without reforming training presents a significant problem for all the countries participating in this study. The gap between the emergence of collaborative programmes for students with SEN and professionals trained to work in these programmes was noted by almost all of the countries as a challenging issue. Coupled with this was the lack of national policies promoting the multidisciplinary training essential for preparing an effective workforce.

This clearly has strong policy implications for all countries. There is a definite need for national policies on training to be incorporated into the policy framework for serving special needs students. Such policy frameworks in recognising multidisciplinary training as a priority could provide incentives to universities and other training institutions to develop multidisciplinary training programmes. Without such incentives and policy mandates, training will continue to be idiosyncratic and lack standardisation. Countries will continue to find it difficult to establish a well-trained professional capacity for providing services for these students. While national governments typically neither set professional standards nor implement training endeavours, they can encourage universities and professional organisations to accomplish these tasks through establishing national commissions, providing incentive grants, adding training language to national policies for services and collaboration, and developing national technical assistance capabilities. For national capacity building, there must be both national leadership and intent.

Universities must be encouraged to develop curricula relevant to co-ordinated systems of service for special needs students through multidisciplinary partnerships, especially for pre-service training. Policies for funding support should not be disincentives for this goal. Frequently there is competition for resources across disciplines when the disciplines are nationally supported and there is centralised educational programming. This militates against co-operative efforts and also perpetuates the imbalance of power of among the various disciplines. Currently there are few partnerships between health, education, and human services in the development of their training programmes. The role of the university is to stabilise and create durability of these training efforts; policies must be put in place to assist them in this role for developing multidisciplinary training efforts for special needs students.

Partnership must also evolve between practitioners and their respective professional organisations and institutions of higher learning. Through a common valuing of multidisciplinary training, professional practice policies and standards can emerge that would be incentives for changing hiring practices and for creating multidisciplinary training opportunities. Multidisciplinary content areas, such as those described in this report, could be useful as certification requirements or as areas for professional licensing examinations as appropriate to each discipline. For example, teacher certification could require evidence of training in service co-ordination or medical licensing examinations could include questions in this area if it were viewed as a priority. Additionally, once individuals trained in a multidisciplinary manner were an available workforce, these types of training requirements could be part of job descriptions and hiring practices.

At first blush, the trend of decentralisation, of shifting responsibilities from central government to provincial and municipal authorities, appears to have mitigated against a coherent multidisciplinary training strategy in countries. Yet the issues of local control and development present both a policy opportunity and challenge if a national capacity of human resources is to be developed in each of these countries. Localities and regions typically are more successful at breaking down bureaucratic obstacles and establishing a willingness to define core tasks on which to work together. Policies that will provide localities with directives to establish training in concert with service integration programmes and identify related training budgets would be very beneficial. For the most part, local budgets for training efforts have not emanated from line items for that purpose. Furthermore, developing mechanisms at the national level to keep track of local efforts and to provide for linking and sharing the results of local training initiatives would further serve developing a national capacity.

Interprofessional training is an emerging field. In this era of collaboration, we must train future professionals as well those in the workforce for this system's shift. Multidisciplinary training which brings professionals from different areas together and trains them to work together, respecting and valuing their professional differences, are among the most important policy considerations to affect the effectiveness of services for special needs students.

Appendix 2.1

Multi-Disciplinary Professional Training Questionnaire for Completion by Member Countries

Introduction

The successful functioning of co-ordinated education, health and social services requires that professionals are equipped with the necessary skills to work together. As part of two CERI studies on integration services for children at risk, we would like to invite Member countries to gather information on multi-disciplinary training programmes for professionals who work with children at risk. Our aim is to identify the range of different approaches to multi-disciplinary professional training and to pinpoint individual programmes which are particularly innovative and effective. In order to give a context to descriptions of specific programmes, we would also like to invite Member countries to provide – if they wish – brief accounts of national policies in this area.

For the purposes of the questionnaire, "children at risk" can be taken to mean children who are in danger of failing in school or in the transition to work as a result of social disadvantage. On the other hand "multi-disciplinary training" can be take to refer to pre-service or in-service training which enables policy-makers, administrators, managers or professionals to work in multi-professional work environments (training in teamwork skills being an example). Finally, the term "programme" is intended to refer either to full professional programmes or to the individual courses (theoretical or practical) which make up these programmes.

National level information

The aim at the national level is to describe the extent to which multi-disciplinary professional training programmes are available in your country and the factors that have encouraged the development and implementation of these programmes. This information can be gathered from government officials responsible for higher education and representatives from various professions in your country. Conducting short telephone interviews may be the most practicable approach or sending a brief written questionnaire. Relevant background documents and materials can supplement the information gathered from these sources. (If it is not possible to gather national level information, it still would be useful to gather programme level information. In this case proceed directly to the next section.)

The following is a series of key questions that should be addressed at the national level to the extent that information is available.

A1 How prevalent is multi-disciplinary training related to providing education, health and social services for children at risk? Please estimate at least roughly the proportion of professional training programmes which have multi-disciplinary components,

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identifying any differences with respect to professions or types of training (*e.g.* pre-service or in-service).

A2 Does your country have any laws or policies which promote multi-disciplinary training? If so, please describe them, again identifying any differences with respect to professions or kinds of training (*e.g.* pre-service or in-service).

A3 Has any financial support for multi-disciplinary training been provided by the government?

A4 What kind of private or voluntary sector support has been given to the funding and provision of multi-disciplinary training programmes?

A5 What other factors at the national level have promoted multi-disciplinary training.

A6 What are the barriers at the national level to the creation and implementation of multi-disciplinary training programmes?

A7 Have any national pilot projects on multi-disciplinary professional training been undertaken?

A8 Have any national evaluations of the effectiveness of multi-disciplinary training programmes been commissioned?

A9 In order to understand the context of professional training in various disciplines, if at all possible, please give brief descriptions of national pre-service programmes for professionals involved in serving children at risk, such as teachers, social workers, doctors, nurses and psychologists. If you only have information on one or two disciplines, or if you have partial information on any of the disciplines, please share that. We understand that this information may be difficult to collect and would appreciate any information which is easy to gather.

Please consider (where possible) the following questions:

- Which government agency or private body organises and administrates professional training?
- How many establishments provide training?
- How many professionals are trained each year?
- How long is the training?
- Where does training take place?
- What is the broad structure and content of training courses?
- What are the requirements and recommendations for course accreditation?
- What are the requirements and recommendations for professional practice?
- Are funding incentives provided for multi-disciplinary training?

A10 Does your government offer multi-disciplinary training of any kind to community people to enable them to provide "lay" education, health or social services?

Programme level

The aim at the programme level is to identify innovative examples of multi-disciplinary training programmes (*i.e.* full programmes or individual courses) in your country. To identify such programmes, you may wish to contact key individuals involved in professional training and service delivery. Both pre-service and in-service training programmes are of interest as well as the training of different groups, including policy-makers, administrators, managers and professionals. Programmes for professionals who cut across disciplines – such as social educators who have both teaching and social welfare responsibilities – may be particularly relevant. Please provide us with as many programme examples as you deem appropriate; 3-5 examples are desirable, but a lesser or greater number is acceptable as well.

The following is a series of questions to guide you in the description of the programmes:

Background

B1 Why was the programme introduced?

B2 What were the broad goals of the programme?

B3 What were the main barriers to setting up the programme?

B4 How long has the programme been in place?

B5 What was the programme like before?

B6 Where is the programme located?

Resource inputs

B7 What financial and other resources have been made available to the programme?

B8 Who has provided these resources?

B9 What is the programme's annual budget?

Programme details

B10 How was the programme planned?

- By one agency
- By several agencies

Please give details...

B11 Which agencies have been involved in the implementation of the programme?

- Educational institutions
- Government agencies
- Professional associations
- Other

Please give details...

B12 Who is the programme for?

- Education professionals
- Health professionals
- Social welfare professionals
- Other

Please give details...

B13 At which professional level is it aimed?

- Policy makers
- Administrators
- Managers
- Field workers
- Other

Please give details…

B14 With which client groups do these professionals work?

- Children at risk
- Children with disabilities
- Other

Please give details…

B15 With which client age-groups do these professionals work?

- Pre-school children
- School children
- Youth in the transition to work
- Other

Please give details…

B16 What kind of training does the programme provide?

- Pre-service
- In-service

Please give details…

B17 How many trainees participate in the programme each year?
B18 What academic qualifications are required for programme entry?
B19 How long is the training programme?
B20 What are the programme's specific objectives?
B21 What have been the obstacles to multi-disciplinary training?
B22 What has facilitated multi-disciplinary training?

Programme content

B23 Is preparation provided in any of the following content areas? (see Phyllis Magrab's discussion paper for detailed explanations of each of these areas).

- Knowledge of the concepts of services integration
- Knowledge of the roles of the various disciplines that serve children and youth at risk
- Preparation for functioning as an effective team member

- Preparation for co-ordinating services

If yes, please give full details:

- What is the status of training in this area? (*i.e.* required part of programme, elective part of programme, free-standing – not formal part of programme)
- How many days per week and hours per day are spent on training in this area?
- What kind of teaching strategies are used? (*i.e.* didactic, practical)
- What kind of teaching materials are used? (*i.e.* generally available written materials, written materials generated for programme, videos, CD ROMS, etc.)
- Please list all teaching materials.
- Please provide examples of "best" teaching materials.

B24 What other content areas are taught in the programme?

Outcomes

B25 What have been the positive outcomes of multi-disciplinary training so far (for trainees, programme providers, service agencies and clients)? Please refer to formal and informal sources of information.

B26 What have been the negative outcomes of multi-disciplinary training (for trainees, programme providers, service agencies and clients)? Please refer to formal and informal sources of information.

B27 What are the expected future benefits of multi-disciplinary training (for trainees, programme providers, service agencies and clients)?

B28 What effect has the programme had on trainees' employment destinations?

B29 What effect has the programme had on trainees' attitudes?

B30 What effect has the programme had on the way services are delivered?

B31 Have any formal evaluations of the programme been carried out. If yes, what are their main conclusions?

B32 Has the programme been successfully replicated elsewhere?

Country report

Please summarise the information that you have collected in a "country report" which describes the national context and/or discusses individual programmes, and includes as an appendix a brief description of how information was collected. You may find it helpful in your report writing to use the summary sheet on page 26 which, once completed, will provide "at a glance" information on the different programmes you have researched.

Thank you very much for your co-operation.

SUMMARY SHEET FOR PROGRAMME DETAILS

Ring as appropriate

B10	Programme planning	One agency/several agencies
B11	Programme implementation	Educational institutions/government agencies/professional associations
B12	Professionals	Education/health/social welfare/other
B13	Level of professionals	Policy makers/administrators/managers/field workers/other
B14	Client group	Children at risk/children with disabilities/other
B15	Client age group	Pre-school/school/transition to work/families/other
B16	Kind of training	Pre-service/in-service
B17	Number of trainees	
B18	Qualification requirements	
B19	Programme length	
B20	Programme objectives	
B21	Obstacles	
B22	Facilitating factors	

B23 Fill in as appropriate

	Status of training	Days per week and hours per day	Teaching strategies	Teaching materials
Knowledge of the concepts of services integration				
Knowledge of the roles of various disciplines				
Preparation for functioning as an effective team member				
Preparation for co-ordinating services				
Other				

Annex 3

Inclusive and Special Education: Issues of Cost-Effectiveness

Jennifer Beecham and Martin Knapp

Background

Between 1995 and 1997 staff from the Centre for Educational Research and Innovation (CERI) visited areas in eight OECD Member countries as part of a long-running study of inclusive education for children with learning difficulties and disabilities. The study's overall aim is:

> "... to gather detailed information and data to inform governments and others on the implications of inclusive educational provision for the organisation of schools and services and their financing" (CERI/OECD, 1995).

In December 1994 discussions were initiated with the authors of this report with a view to designing a framework and methodology for an economic evaluation to be included in the multi-national study. The framework for the economic study would build on the authors' previous experiences in undertaking similar studies of health, social care and criminal justice interventions and policies (Knapp, 1984; Netten and Beecham, 1993 and 1997;) and in particular in previous evaluations of child care services (Beecham and Knapp 1995; Bottoms, Knapp and Fenyo, 1995; Knapp and Fenyo, 1989; Knapp and Smith 1985). The methodology, and its attendant tasks and activities would be piloted in the United Kingdom but would be designed and tested so as to be applicable to all the countries included in the main study.

This annex sets the framework for the cost-effectiveness evaluation of inclusive education by describing six stages to be undertaken, and illustrating these with reference to activities undertaken for the pilot study in one local education authority in England (Section 2). Results from the pilot study are provided in Section 3, which sets out the costing methodology, presents some indicative costs for pupils at the two schools in the study, and discusses the relationships between the costs of education and support for pupils, on the one hand, and their education and other needs, on the other. The final section draws out lessons from the pilot study, commenting on its appropriateness for use in a multi-national context and study.

Methodology for a cost-effectiveness study

Economic evaluation

The demand for economic evaluations in areas of public policy is usually greater when a country's macroeconomy is in some difficulty or when there are public expenditure cuts for public services. However, the relevance of economics does not stem solely from the

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challenges of a recession-bound economy or government policy priorities. Economics has relevance whenever there is scarcity of resources relative to needs or demands (actual or latent). This applies to school budgets, teachers, books, and virtually any physical or human resource employed in the education system.

Widespread recognition of this scarcity leads to many expressed demands for economic evaluations to help to guide decisions as to how to allocate scarce resources between competing ends. When making choices in the face of scarcity, in the search for the better use of available resources, a lot of concepts and a lot of terms tend to get bandied about: value for money, efficiency, cost-effectiveness, economy and effectiveness, performance measurement, cost-benefit ratios, and so on. These terms have different meanings, and are used inconsistently.

Various economic, demographic and social developments in the last few years have contributed to a marked growth in demands for economic evidence regarding alternative educational policies and practices, placements and treatments. How then should economic evaluations be conducted? And what criteria are to be employed?

Evaluative criteria

There are many criteria for choosing between alternative uses of resources or alternative distributions of services. Economic evaluations have tended to concentrate on the criteria of effectiveness, economy, efficiency and equity (justice), either singly or in combination. Subsidiary or linked criteria might include autonomy, liberty and diversity.

Economy is the saving of resources, and its pursuit requires detailed costs data, but no attention need be paid to the impact of lower spending upon children or others (the outcomes of treatment). Economy is the criterion addressed in the simplest of cost evaluations (cost-offset and cost-minimization analyses). Effectiveness is conventionally defined in terms of improvements to pupil's educational attainment and quality of life. It pays no regard to costs. There are of course whole batteries of instruments to measure effectiveness in education, and economic evaluations could base their effectiveness measures on such instruments, but a steadily increasing number of evaluations are also including unidimensional ("utility") measures (see below).

The criterion of efficiency combines the resource (cost) and effectiveness dimensions. The pursuit of efficiency could mean reducing the cost of achieving a given level of effectiveness, or improving the volume and quality of outcomes achieved from fixed budgets. Efficiency can seem a controversial objective, but – properly understood and put in context – it ought to be widely acceptable. It is not a euphemism for "cutback", for efficiency can sometimes be promoted by spending more, not less. Efficiency is sometimes examined in combination with the fourth criterion of equity (or justice). Equity is not the same as equality. Targeting services on needs is one example of adopting an equity criterion, although it has efficiency implications and interpretations.

Modes of evaluation

The three most useful modes of economic evaluation are cost-effectiveness analysis, cost-benefit analysis and cost-utility analysis. They have some common elements, but differ in two main characteristics: they measure outcomes differently, and consequently they address slightly different policy or practice questions.

Cost-benefit analysis (CBA) is unique in that it addresses the extent to which a particular course of action, such as a form of educational integration, is socially worthwhile. All costs and benefits are valued in the same units – usually monetary units – and can thus be directly compared; if benefits exceed costs, the evaluation would recommend the policy or project, and vice versa. The simple comparison of "costs incurred" with "costs saved" is not a CBA but what economists now call a cost-offset analysis. Conducting proper cost-benefit analyses is particularly difficult in this field because some very valid outcome indicators are not easily expressed in monetary terms.

Cost-effectiveness analysis (CEA) is concerned with ensuring that resources allocated to the education sector are used to maximum effect. CEA is usually employed to help decision makers choose between alternative interventions available to or aimed at specific population groups: If two forms of education are of equal cost, which option has the greater effectiveness from a given budget? Or if two options have been found to be equally beneficial in terms of educational attainment (say), which is less costly?

The newest mode of economic evaluation, *cost-utility analysis* (CUA), is similar to CEA with the important exception that it measures and then *values* the impact of an intervention as well as the cost of achieving that improvement. The value of health improvement from a treatment is measured in conflated units of "utility", in contrast to CBA which uses monetary values. CUAs avoid the potential ambiguities with multi-dimensional outcomes in CEAs, and can be applied to choices across a range of policies or practices for different target groups. Most progress with CUAs appears to have been made in health economics where the most common value measure is the quality-adjusted life-year (QALY). Despite its inherent simplicity and attractiveness, and its growing use across a wide span of health care contexts, CUA has not been applied so widely elsewhere and would require a lot of prior developmental work in the field of special education.

These modes of evaluation have a common aim in their approach to cost measurement. If a societal perspective is adopted, which is usually the case, this common aim is to range widely across all direct and indirect costs. The evaluative modes obviously differ with respect to their measurement of outcomes.

As the above descriptions imply, we advocate that cost-effectiveness research is conducted alongside, and is preferably fully integrated with the main multi-country study undertaken by CERI. The methodology outlined below assumes such methodological integration. It builds directly on research programmes at the Personal Social Services Research Unit, University of Kent at Canterbury and now also at the London School of Economics, which have themselves been built upon the broadly-applied health economics tradition (for example, see Drummond *et al.*, 1987; Drummond, 1980).

Generally, the broad aims of an economic evaluation, specifically a cost-effectiveness study, of alternative models of education would include the following:

- To collect data on all relevant educational inputs, other services and supports which children with special needs receive in order to calculate the costs associated with each model of education.
- To describe the total and component costs by funding agency (including costs accruing to family members) for each model of education.
- Where possible to examine inter-individual differences in total and component costs and their associations with the characteristics of individuals, and by reference to the alternative models.
- To analyse at an aggregated level the links between costs, child needs and outcomes. If the sample size is sufficient these cost-needs-outcomes links can also be investigated at the individual level.

In a small pilot study of the kind conducted in England it is not possible to address every one of these aims. But it was important that a research framework was developed which could, in the longer term and with greater research resources, allow these aims to be achieved. That was the pragmatic purpose of the work described in this report.

Method

Generally, and for ease of execution, the cost-effectiveness study should have the same broad design (criteria for eligibility, intervention modes quasi-experimental approach, sample sizes) as the design chosen for the main research evaluation. It should employ the same data collection points, and should span a similar period of time. There are unlikely to be strong reasons for adopting a different design.

It is helpful to distinguish six main stages to a cost-effectiveness evaluation. These stages structure the methodology for this study. (These stages are described in more detail in Chapter 7 of Knapp, 1984; and in Knapp and Beecham, 1996. See also Drummond, 1980, and Drummond *et al.*, 1987 for a slightly different – but fully consistent – set of stages.) The six stages are listed in Box 1 and discussed below, with an outline of the tasks associated with each as undertaken for the present study.

Box 1. **Six stages of cost effectiveness evaluation**

1 Define the alternative to be evaluated.
2 List the outcomes and costs.
3 Quantify and value the outcomes and costs.
4 Compare the costs and outcomes.
5 Qualify or revise the findings in the light of risk, uncertainty and sensitivity.
6 Examine the distributional implications.

Define the alternative to be evaluated

The first task in an economic evaluation is to clarify the question to be addressed: What is the purpose of the study? All evaluations are comparative, whether they compare two or more alternative policies or modes of intervention, two or more groups of people or localities, a single group of people before and after an intervention, and so on. For the economic evaluation, therefore, it must be clear from the outset what alternatives are being compared.

In this study, two models of education are compared, typified by two schools in one local education authority in England. The alternatives to be evaluated are thus integrated and segregated education. The CERI report provides a detailed description of the two schools and of the local policy, guidance and funding arrangements. Issues of training, support services, parental and community involvement and curriculum development are also considered. Here, only a brief summary of these data are provided and readers are referred for more detail to the report on *Inclusive Education in England* (CERI/OECD, 1995).

In the local education authority (LEA) under study, about 4% of the school population have statements of special needs under the 1983 and 1993 Education Acts. Just over half of these children are educated in ordinary schools. Staff at the "exemplar" integrated secondary school (which is designated as an *enhanced resources school*) have a high level of commitment to integrated education for all children aged 11-18 years. The school is situated in a small town, is maintained by the Local Education Authority but managed under LMS regulations which mean greater autonomy in management and budgeting. There are 110 FTE teaching staff, 8.2 (FTE) of whom work within the special needs faculty (Learning Support Team) and who are supported by 5 FTE education care officers. Across the split-site of this secondary school, there are 1 740 pupils who work in classes with an average of 26 pupils. Teaching in all years is based on mixed ability groupings where lesson planning takes into account differentiation of syllabus content within the classroom. Children with special needs are carefully allocated to certain tutor groups, usually only three children in any group, and only three or four tutor groups in any year, depending on the skills of the teachers and the attitudes of other children. These tutor groups are timetabled together to allow support staff to move between classes. Twenty-seven lessons were observed which "provided an excellent framework within which children with special needs could... work" (CERI/OECD, 1995, p. 26).

The second model of education under study is that provided within special schools, where children with special needs are provided for separately from mainstream schools. The sample school is based in a county-town some 50 miles from the integrated school and located on a medium-sized public housing estate. Again the school serves secondary age children, although there is no sixth-form capacity. In the 1994-95 academic year there were 86 children on the roll. The eleven teaching staff are supported by 4 FTE education support staff. The school is described as providing a service for children functioning intellectually at between half and three-quarters their age, a similar range to that found in children with statements in the comprehensive school. Four lessons and lunchtime activities were observed, each carried out in an orderly fashion. Differentiation according to ability level within the classroom ensured pupils remained engaged although some concern was expressed by the observer about the lack of resources for the science lesson (*op. cit.*, p. 40).

List the outcomes and costs

The second evaluative stage is to draw up a fully comprehensive list of all relevant dimensions on the cost and effectiveness sides of the evaluation. It is important to compile a complete list even if some dimensions subsequently prove infeasible to measure in practice, or prove irrelevant in a particular context. In this way, the full breadth of the possible resource and effectiveness impacts can be drawn to the attention of decision-makers, agencies in service delivery networks, researchers and others. The descriptions of the schools included in the present study provide qualitative outcome information along a number of dimensions: quality of the children's work, lessons, and class preparation; quality of the accommodation; suitability and availability of teaching materials and other resources; staff development and training; design and implementation of the curriculum; management of the school and organisation of teaching responsibilities; provision of assessment and pastoral care; and liaison with other agencies (CERI/OECD, 1995).

Over and above this information, and at the individual child level, data on reading attainment has been collated for a number of pupils from each school. These tests were undertaken by the LEA staff and are the subject of a separate report (see Appendix 3.5). Pupils from each school whose test scores are included in that report formed the basis for the selection of the sample on which to test the questionnaire devised to record service receipt information (the CSRI; see below). These various indicators of quality, management and pupil attainment can be seen either as direct measures of outcome effectiveness or as "intermediate" indicators linked to them.

In principle, the costing part of the cost-effectiveness evaluation should cover every resource facet of a child's education, support, lifestyle and activities which could conceivably be affected by participation in either model of education. We know, for example, that the special school receives rather less input from the educational psychologist, but rather more from medical officers than does the integrated school. Pupils, therefore, might use more (or less) of these services where they are provided outside the school. Similarly, parents of children at either school may have to provide more or less support for homework activities or may call on professional assistance for the children's educational needs after school hours. The physical and mental health needs of pupils at either school may also require different levels of service response. (In the absence of more specific information on pupil's health, these service-related measures can also be used as proxy measures of needs.) Each of these elements of support carries cost implications, although in practice some elements can be omitted.

Quantify and value the outcomes and costs

At the third stage in an economic evaluation would be the measurement or quantification of the costs and effects. If a cost-benefit analysis were to be undertaken, the effects or outcomes would also need to be valued in monetary terms at this stage. We have already noted how difficult it can be to attach monetary values to outcomes, certainly to the full range of outcome indicators from education for children with special needs, although many studies in the wider education field rely quite heavily on income or productivity measures as the dominant indicator. For school-age children with learning difficulties or disabilities, employment-related indicators of outcome might either be seen as not centrally related to the aims of special education and/or too distant in time. In this initial exploratory study, such a long-term perspective was not practicable.

Arguably, the measures of reading and maths ages are outcome scores in that they represent levels of attainment in particular subjects set against population norms. However, measured at only one point in time, these scores may be confounded by other factors such as the child's innate abilities. A purer measurement, and a more common interpretation of "outcomes" would be provided by change over time, requiring the repeated use of the same instrument so that a change in the scores can be calculated for each pupil. The report on reading attainment includes some data on score changes over time (see Appendix 3.5). Annual reviews of statemented children are undertaken at the integrated school, including standardised reading and spelling tests and an understanding of spoken vocabulary. Children's views on their progress are sought as well as those of tutors, teachers and parents. Routinely-collected data such as these form a useful basis for the measurement of educational outcomes, and incorporating them would move some way towards a practical quantification of final outcomes.

Cost measures are based on service utilisation data obtained for each study member. In this study, the data are collected retrospectively over the previous school term – a period chosen as it is relevant to the children under study and because it represents a compromise between the accuracy of parents' memories and the period over which contact with less frequently used services is likely to occur (such as an educational psychologist or hospital out-patient appointment). Service utilisation data are collected using a variant of the Client Service Receipt Inventory (CSRI), a copy of which can be found in Appendix 3.1 (Beecham and Knapp, 1992).

Costs are attached to each service or element of support in turn, using the best available estimates of *long-run marginal opportunity cost*, where "marginal" refers to the addition to total cost attributable to the inclusion of one more user, and "opportunity cost" refers to the opportunities forgone by not using a resource in its best alternative use, which is the conventional economics definition. It happens that the short-run average revenue cost (obtained from a complete set of agency accounts), plus appropriately measured capital and overhead elements, is probably close to the long-run marginal cost for many services, and is conventionally assumed to be sufficiently close for empirical work in most economic evaluations.

The costing of parental support is the most contentious aspect in this particular study, as there is a case for arguing that all parents could be expected to provide support to their school-age children with homework, independence skills and so on. For children with special needs, the importance of this input cannot be underestimated, but the monetary value to attach is not immediately obvious. In this pilot study we have adopted two approaches: we have costed parental support (taking the parents' reported levels of input as accurate) at either zero or at GBP 10 per hour (grade 0 teacher plus on-costs).

In this study, particular attention is paid to the two schools to ensure accuracy in calculating their associated costs. Interviews were undertaken in each school using a standardised set of questions (see Appendix 2.1) to elicit cost-related information enabling the overall costs to be disaggregated and, for the integrated school, the identification of the extra costs associated with educating children with special educational needs.

As a general principle, local data should be used to cost some other services. If, for example, some of the study members live in community homes (children's homes) – services which will considerably raise the costs of the "service package" – facility-specific data should be used as these costs are likely to vary between and within different areas of the country. For services which are likely to make a smaller contribution to the total costs of care, broader estimates can be applied (Allen and Beecham, 1993). There is an excellent compendium of service costings, updated annually, which will assist this aspect of the costs work (Netten and Dennett, 1995, 1996).

Compare the costs and outcomes

The fourth stage is to compare the costs and outcomes. Comparisons between the alternatives being evaluated are made in relation to both costs and outcomes (effectiveness), after whatever summation is possible. (In cost-benefit studies, the costs of a policy can be compared directly with the benefits, and cost-benefit differences or ratios compared between alternatives.) Difficulties can arise when costs and outcomes are distributed over time in different patterns – costs may be incurred early, but outcomes may not accrue until rather later – and the usual procedure is to discount future costs and outcomes back to a present value before making comparisons. This pilot study does not have longitudinal data, so this potential problem does not arise.

Most commonly in a cost-effectiveness analysis, average costs are calculated for each of the samples and compared with the outcomes. The simplest decision rule is to compare the costs and summary outcomes for each group or model, and to conclude that the option with lowest cost per given level of outcome is the more efficient.* This decision rule may not be easy to apply in practice. Where multidimensional outcome measures are used, it may happen that improvements are registered along some dimensions but that there is deterioration along other dimensions. Alternatively, the cost and outcome comparisons may point to different preferred solutions.

The comparison of costs and outcomes is clearly the most fundamental and most interesting stage of any economic evaluation. In this study, two levels of outcome measure are considered. First, information from the focussed visits by CERI researchers allow the schools to be compared and contrasted along a number of dimensions (see below), setting the context for a broad discussion of costs and intermediate outcomes. Second, data on reading ability were collected for all children with statements in either school. These are individual-level measures which record attainment levels in any given year and, when collated over a number of years for individual pupils, provide one measure of final outcome, or *changes* in ability.

Examine the sensitivity of the findings

The fifth stage in this description of the conduct of economic evaluations is to examine how sensitive are the findings to the assumptions made in the course of the analysis. This fifth stage is thus necessary in order to check the assumptions made in the above calculations and analyses in case error or bias crept in.

Some of these sensitivity issues have been addressed in a limited way in this report by using nationally applicable costs data for some services and by clearly describing receipt of different types of services and detailing the cost implications of providing care in either of the schools. We should also note that the pilot study includes only a few pupils and is intended to illustrate the methodology rather than provide definitive results. (The children are unlikely to be representative or typical of all pupils with special needs.) Care should be taken when interpreting the results of this study.

Examine the distributional implications

The last of these stages is necessary if, as is often the case, the primary purpose of an evaluation is the examination of efficiency (cost-effectiveness differences). Equity or fairness in the distribution of the burden of costs and the enjoyment of outcomes is often of at least equal importance. The distribution of resources can be examined in a number of ways, perhaps exploring implications for different geographical areas or different groups (perhaps identified by level of ability, age or gender).

In this research our interest was in the distribution of resources between services and agencies. Given that national policy advocates the extension of inclusive rather than segregated education for children with special needs, the levels of non-school resources used to support pupils in either model is of particular interest. With seemingly ever-tightening constraints on health and social care budgets, the availability of these external supports must be questioned.

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[*] Estimation of supplementary cost functions can illuminate these broad results but the approach requires a large sample of study members to help ensure the results are robust and valid. Cost functions will help to tease out and "explain" inter-individual variations statistically and should particularly illuminate cost-outcome links. Such *behavioural cost functions* have been used for these purposes in some of our previous health and social care evaluations; details available on request. See Knapp (1995, chapter 4).

Overview

Economic evaluations are no different from evaluations built up from other disciplinary perspectives in that they require a firm theoretical base. The approach which we have tended to favour, and which we have developed and refined in the PSSRU (Personal Social Services Research Unit) in our research work in health and social care, is based on the *production of welfare model*. This model has clearly been developed for work in specific fields, but in its generality and flexibility it has proved to be adaptable and widely applicable. The model is grounded in sound economic principles, and can in fact provide a structure within which the approaches, evidence and expertise from many disciplines can be incorporated. This assimilation of perspectives and interchange of relevant ideas is useful when evaluating the complex issues surrounding any service, and is particularly relevant when studying education for children with special needs where expert provision is often necessary across health, social care and educational boundaries.

The *production of welfare model* provides an overarching framework which identifies the components of the evaluation and the links which can sensibly be made between them. The model indicates that there is a relationship between *resource inputs* (the staff, building, equipment and other resources which can be measured and summarised by costs) and *final outcomes*, which are the changes in the educational, health or welfare status of users (pupils, patients, clients) occurring as a result of the combinations of resource inputs.

This input-outcome relationship is mediated through the influences of *intermediate outcomes* (the combinations of the many and various services used, and their qualities) and *non-resource inputs*. The latter include all influences on the achievements of a service (the so-called final outcomes) which are not readily expressed in cost terms. The so-called non-resource inputs do not have a market price. Examples include the attitudes and characteristics of those involved in the teaching process (both staff and pupils) and, for example, the classroom and school milieux, the quality of teacher-pupil and teacher-parent relationships (and of pupil-parent relationships) and general school, local and national educational environments. Non-resource inputs can usually be acquired or developed, albeit often only rather slowly, but they are not bought and sold (directly) in any market and they are not easily or perhaps sensibly expressed in monetary magnitudes. Because these non-resource elements are neither outcomes in their own right (even though certain milieux are highly desirable) nor costs, there is a danger that economic evaluations might miss them. Some of the school characteristics addressed in the CERI study are clearly non-resource inputs. Indeed, in this pilot work, these are important indicators of school practices and qualities.

The description of cost-effectiveness analysis set out above equips us with an end-point for the evaluation (the study aims) and a structure within which these aims can be achieved (the study method). It provides a brief account of the activities involved - one that is perhaps *deceptively* simple, so that we caution readers not to see cost-effectiveness analysis (or indeed, economic evaluation more generally) as necessarily easy and quick to undertake. It is important that economic evaluation is not seen as just adding a small costs component to an existing study. Economic evaluation is a way of examining the relative costs and outcomes of a course of action and thus often requires a complex and disaggregated data-set and considerable technical expertise to process, analyse and interpret those data.

The next section discusses the practical application of this methodology to the study of inclusive or segregated education models. In particular, we focus on identifying, quantifying and valuing the costs (stages 2 and 3), illustrated with data from the pilot study. The section ends with a discussion of stage 4, in which costs and outcomes are compared within the broad parameters described above.

Pilot and Illustration

This section is structured around the four broad aims outlined earlier. We first describe how we collect data on all services and supports which children with special educational needs receive in order to calculate the costs associated with each model of education. Second, we describe the total and component costs by funding agency (including costs accruing to family members) for each model of education. Third, we discuss the question of inter-individual differences in total and component costs, and the potential associations with the characteristics of individuals, and by reference to the alternative models. Finally, we describe at an aggregated level the links between costs, children's needs, and outcomes.

Collection of service receipt data and calculation of associated costs

A project-specific *Client Service Receipt Inventory* was designed to collect retrospective information (for the previous school term) on all support services used outside school. Each of these services will carry cost implications which should be included in the calculation of total support costs. The dimensions of the CSRI cover: housing status; occupation of parents and household income (which are also commonly-used indicators of socio-economic status); receipt of services which specifically respond to educational needs (such as home tutors); receipt of services which respond to health or social care needs (hospital appointments, respite care, etc.); and support from parents or carers for educational needs (see Appendix 3.1). Interviews with parents or carers of eight children (for whom data on educational attainment were collected) were conducted by either a member of staff (at the special school) or by a member of the CERI research team (for pupils of the integrated school). Overall responsibility for organising the interviews lay with the CERI/OECD researcher. This is consistent with the general preference, as in a full cost-effectiveness study, for the CSRI schedule to be fully integrated with other data collection activities.

As in most other projects where the CSRI has been used, it proved to be an acceptable instrument for both interviewers and interviewees, allowing information to be recorded easily and in such a way that the costs of the individual "service packages" could be calculated. This pilot revealed that the schedule should emphasise that only receipt of services based outside the school site is to be recorded and that the interview is best undertaken by a researcher rather than a person closely involved in the child's education.

Table A3.1 summarises the support received by each young person for whom data were collected as part of the pilot study. The young people have been divided into two groups depending on the type of school they attend. The table shows the family circumstances in which study members live, receipt of off-site education, health and social care services and includes a note of the services which parents had found useful for the young person or where there were "gaps" in the child's support package.

All children in the pilot study lived in the parental home and all had been "statemented" under one of the Education Acts. No one was using any personal aids for mobility, communication and the like, yet we know that the inclusive school had been adapted for children who use wheelchairs. Data on a full range of health and social care services could be recorded, but apart from the services provided within the school, parents were the major source of support. They provided up to 10 hours of help each week with homework and other "independence" or self-help skills.

Table A3.1. **Services received by sample members over the previous term**

Inclusive school

	BH	NL	KQ
Family circumstances	Lives with two waged parents and one sibling in owner-occupied 3-bedroom property	Lives with two unwaged parents and two siblings in owner-occupied 3-bedroom property	Lives with one waged parent and one sibling in 3-bedroom owner-occupied property
Young person's age	15	13	15
Extra education services	None	Teacher support 1 hour per week	None
Parental support	BH does not want help	5 hours per week, particularly to help overcome anxieties	8 hours per week to help stimulate his interest in school work
Health and social care services	None	Orthodontist out-patient appointment, educational psychologist visited at home for 1.5 hours	None
Services particularly helpful	Annual medical and dental checks at school	Educational psychologist, special needs teacher	Special unit in primary school
Gaps in service provision	Holiday activities separate from family and support finding job opportunities	Continuity of teacher support during transition from primary to secondary school	More information from school teachers

Table A3.1. **Services received by sample members over the previous term** *(cont.)*

	Special school				
	KC	TC	KE	DO	ET
Family circumstances	Lives with two parents (one waged) and three siblings in 3-bedroom property	Lives with two un-waged parents and one sibling in 3-bedroom LA rented property	Lives with two waged parents and two waged siblings in 3-bedroom owner-occupied property	Lives with two waged parents and one sibling in 3-bedroom owner-occupied property	Lives with two waged parents and one sibling in 4-bedroom housing association property
Young person's age	15	13	15	13	15
Extra education services	None	None	None	None	None
Parental support	10 hours help per week with independence skills	5 hours help per week with homework and independence skills	3-4 hours help per week with homework and self-help skills	7 hours help per week with homework and independence skills	10 hours help per week with homework and independence skills
Health and social care services	12 × 20 minutes with speech therapist	10 × 20 minutes with speech therapist, 3 × 30 minutes with school medical officer	None	None	None
Services particularly helpful	Speech therapy	Speech therapy and school medical officer	None	None	None
Gaps in service provision	Longer school day	None	None	None	None

Description of total and component costs

Information on the duration and frequency with which individual children use services can be combined with information on the unit cost of each service to allow the calculation of support costs over the previous term.Table A3.2 lists the unit costs of each service used and the source of data. Most research energy was expended on accurately costing the two schools in the study. The researchers visited each school to interview the members of staff who would have most information on the costs of the school and the cost-related activities (staff and pupils). These interviews are summarised in Appendices 3.3 and 3.4. The costs calculated for each school include the revenue costs associated with running the school and providing education for the pupils (adjusted to reflect the higher costs associated with pupils with special needs at the integrated school). Some 80% of schools' income is made up of the age-related capitation rates which vary little between local authority areas. Because all schools are encouraged to stay within strict budget limits, these costs have national relevance. Our costs also include those accruing to other agencies for providing services such as speech therapy or medical examinations, or for use of community facilities such as swimming pool, sports centre or libraries, and the cost implications of capital investment in buildings and special equipment. The costs of providing any services to users of school facilities who are *not* pupils or staff would be excluded using this comprehensive approach but no such cost categories were found for either school in this study.

The average costs for *all* pupils attending the inclusive school (GBP 2 200 per annum) have been adjusted to allocate more appropriately the costs of supporting children with special needs. Thus the average cost of educating children with special needs at the inclusive school is GBP 5 523 per annum, about two and a half times more expensive than the average cost of educating pupils without special needs at that school.

For pupils attending the special school, the costs of school education were less difficult to calculate because all pupils had special needs. However, it was not possible to disaggregate school costs (for either school) to reflect the differential needs of pupils within the special needs groups. After making allowance for capital valuations and direct expenditure by the LEA, average costs at the special school came out at GBP 4 938 per annum.

In a full cost-effectiveness study with a larger sample, particular attention would probably need to be paid to calculate accurate costs for any special accommodation facilities and support provided therein, especially if there is the possibility that different practices regarding integrated education could lead to different accommodation arrangements. These costs can comprise a large proportion of the total costs of support and are likely to vary considerably depending on the type of facility. For example, the opportunity costs of a child living in domestic housing, foster care or a staff-supported residential unit are likely to be very different.

In this study, some recognition has been made of variability of these costs by placing a non-zero value on the support parents provide for homework and self-help skills (estimated as the cost of input from a teacher on scale point 0). As noted earlier, this is one of a number of costs that could have been attached to parental support. Costs have not been calculated for other elements such as shelter and other care provided within the accommodation, and day-to-day living expenses. The two alternative costings of parental support have been included in Table A3.3. This table also includes the costs of any other services used by the young people and provided away from the school. The unit costs for all other services, which anyway absorb a smaller proportion of the total costs of support, have been calculated from other sources. These are usually nationally-applicable costs, again giving the costs methodology greater potential to be relevant nationally, rather than just locally. Their unit costs are

Table A3.2. **Service costs (1995-96 prices) and data sources**

Service	Unit cost	Data source
Inclusive school	£1 841 per term[1]	School expenditure accounts and interview
Special school	£1 646 per term	School expenditure accounts and interview
Maths tuition	£19 per hour	Salary plus on-costs
Educational psychologist	£55 per contact hour	Netten and Dennett (1996)
Speech therapist	£39 per contact hour	Netten and Dennett (1996)
School medical officer	£158 per day	Salary plus on-costs
Parental support	£10 per hour	Grade 0 teacher plus on-costs

[1] Average cost per term adjusted to reflect extra costs of pupils with special needs

Table A3.3. **Total and component costs per term**

1995/96 price levels

Pupil	Costs per term – in pounds				
	School	Off-site support[1]	Parental support[1]	Total excluding parental support	Total including parental support
BH	1 841	0	0	1 841	1 841
NL	1 841	418	650	2 259	2 909
KQ	1 841	0	1 040	1 841	2 881
KC	1 646	154	1 300	1 800	3 100
TC	1 646	366	650	2 012	2 662
KE	1 646	0	455	1 646	2 101
DQ	1 646	0	910	1 646	2 556
ET	1 646	0	1 300	1 646	2 946

1. For these costs the school term is estimated to last 13 weeks.

presented in Table A3.2 and service receipt patterns are shown in Table A3.1. In total, however, these costs comprise only a very small part of the young people's support costs when set alongside those accruing to the school.

Examination of cost differences

The variation in costs between the alternative models of supporting children with special educational needs is small, and clearly dominated by the direct costs of the schools. It is also clear from Table A3.3 that the inclusion of parental support costed at GBP 10 per hour makes quite a big difference to the totals.

The costs of educating a pupil are similar, as is the scope of services provided within the schools. Over and above teaching services the integrated education model provides speech therapy, physiotherapy, eyesight tests, medical examinations and psychology support. With the exception of physiotherapy and the addition of (irregular and modest) support from the special needs advisory service, a similar range of services are provided at the special school. However, the *intensity* with which these services are available does differ. For example, the 71 children at the inclusive school who are "statemented" have access to only one hour per week of speech therapy and one hour every fortnight of physiotherapy and only two or three of the children actually receive these support services. The educational psychologist spends 30 hours per year with the pupils with special needs providing general and individual support. At the special school the head teacher estimated that no more than 12 hours per year is offered by the educational psychology service, spread over 94 pupils.

We would expect the costs within the schools to vary according to the needs of the pupils, but in this pilot study we have few direct measures, nor is the sample large enough to conduct satisfactory tests. Broadly speaking, the pupil/teacher ratio at the inclusive school is 16:1 but an extra 18 staff work in the Special Needs Faculty, supporting 58 children who bring in extra resources, 13 pupils who have a statement of special need without extra resources, and a further 135 pupils who are registered as having special needs. Six of the inclusive school's pupils have needs such that extra staff are employed to support them.

Four full-time-equivalent Educational Care Officers (ECOs) and one half-time teacher are dedicated to this group of children, none of whom were included in our sample. Similarly, we also know that a number of children use wheelchairs, and these pupils will probably require help to get around the school and may have other self-care support needs. The instigation of the Paired Reading Scheme implies a higher level of educational "need" in some children that cannot be dealt with entirely within the differentiated syllabus teaching method.

All pupils at the special school are statemented, of course, and the majority (86%) have moderate special needs ("other learning difficulties"). But the 5% with severe learning disabilities clearly need a great deal more support, whilst the 9% with emotional or behavioural disorders can generate particular problems for special schools, for they can be disruptive and can lead other pupils astray. They require a lot of staff time and a lot of liaison with external agencies (especially the social services department). The head teacher reported an increasing proportion of EBD children at his school, but less than adequate compensation in the revenue grant from the local education authority.

To allocate the within-school costs to individual pupils, a greater level of detail is required than could be collected within this study. Such information, however, will be invaluable where pupils with high levels of needs are educated in mainstream schools so that the full costs of implementing such a policy are recognised and schools receive sufficient funds. It may well be the case that some children are more expensive to educate in mainstream schools than in special schools.

Exploration of the links between costs and outcomes

One measure of outcome (improvement) commonly used in schools is progress in the reading ability of pupils. As part of the study, data were collated on the reading age for children with statements in both the inclusive and special schools (see Appendix 3.5). The pupils for whom CSRI data were collected were included in the sample, but sample members from one school were not "matched" with pupils from the other model.

The data showed that although almost all of the children had formal statements of need on account of moderate learning difficulties, the special school pupils reading age was generally lower. Table A3.4 shows the median reading progress for pupils in each school year as tested in 1995.

Table A3.4 **Median reading progress, 1995**

	Inclusive school	Special school
Median progress over one year	0.5	0.1
Median progress over two years	1.2	0.5

The progress made over each successive year between 1992 and 1996 was calculated in 53 instances in the inclusive education model and 71 instances in the special school. Over a two year span, the instances were 25 and 27 respectively. Over both the one – and two – years, the progress (as measured by the median SPAR score change) at the inclusive school was significantly greater than the progress made at the special school (see Appendix 3.5). For the eight members of the "costs sample", the data show that for a one-year period between 1994 and 1996, the reading age of one pupil at the special school and two pupils at the inclusive school had improved slightly.

It must be stressed that these are relevant but illustrative data. The sample sizes, particularly for the purposes of revealing patterns in the costs of special education, are extremely small. Moveover, one single measure (such as reading ability) clearly cannot provide sufficient data on outcome for a full cost-effectiveness study. The amount of progress any child makes might be limited by their particular learning difficulty, and children will show different abilities across the range of academic subjects. Measures of improvement in non-academic subjects are also likely to be important, not only vocational subjects but also social skills, self-care skills or motor control. And, of course, good effectiveness indicators would normally require repeated measurement over time.

These considerations make it infeasible to explore the relationships between costs, needs and outcomes in this pilot study, although this should certainly be seen as an attractive option in a larger study.

Overview

The experiences gained in conducting this pilot study and the data collected from the two schools have allowed us to test the appropriateness of the methodology outlined in Section 2. From these experiences we would conclude that, with some minor amendments, the *Client Service Receipt Inventory* would make an appropriate instrument to use in this particular research context, although relatively few services are used by pupils outside the school context.

The costing methodology for schools and other services also proved to be adequate, but it relies on the availability of sufficiently detailed information about the distribution of staff and other resources within each model of education, and it also relies on the willingness of head teachers (and some other staff) to assist in the research process. Where the method could most usefully be improved, although only at potentially considerable research cost, would be in the disaggregation of costs *within* schools, seeking class-specific or (better still) pupil-specific costs. This can be achieved either through detailed observation and/or questioning of staff to discover how teacher and other resources are allocated between pupils, or through careful statistical analysis of data collected from a large sample of schools in order to identify "average" relationships between costs and pupil needs and other characteristics.

The comprehensive costing of service/support arrangements for individual pupils is clearly necessary, even though expenditure by schools dominated total costs for the pilot sample. Children with special needs and their families are often in need of the skilled interventions of a range of agencies, both within and outwith the education system, and this should be reflected in the evaluative process. Parental support is important to a child, especially a child with special needs, but there is no obviously "best" way to reflect this support in the costing analysis. Two alternatives have therefore been offered here.

Collection of data along a number of needs and outcome dimensions would allow their associations with costs to be teased out in a broader study. This would be of interest in its own right, but – as noted above – also permits the statistical disaggregation of what are otherwise "congregate settings" (group provision) costs, which would in turn help to improve the accuracy of some costings and the validity of comparisons across settings.

Implications of the method for a multinational study

There can be little doubt of the growing impact of economic considerations and the growing relevance of economic evidence for decision-making in a wide range of public policy contexts, nor the pervasive influence of this dimension across national and cultural boundaries. However the historical development of interest in economics reveals the dangers of misplaced zeal, hasty over-reaction to partial data, or over-optimistic reliance on incomplete evidence and arguments. This is particularly the case when it comes to costings and economic evaluations. The need for a costs perspective is widely recognised, for example, but the skills necessary to conduct cost studies or broader economic evaluations are not as widely available. For this reason we have taken care in this report to set out conceptual and methodological frameworks which we expected not only to be helpful for the current pilot work in the UK, but which we would expect to travel well to other countries and settings.

It is important to have a clear conceptual framework for the evaluation of integrated and special education, and – correspondingly – a comprehensive structure for the empirical work to be undertaken. In this paper we set out the production of welfare approach as a possible conceptual framework, noting its proven value in various non-education contexts. This approach emphasised, *inter alia*, the importance of full cost and outcome listings, even if it later proves infeasible in any particular piece of empirical work to measure the full range of costs and outcomes in practice. The framework would, we believe, work well in other countries, but it would need adaptation to different national contexts and education systems. But, of course, one value of a framework of this kind is that it forces the research to be explicit about educational processes, resources and outcome dimensions.

The local context and culture would clearly affect legal and organisational structures, budgetary arrangements, social and educational expectations (for example, in relation to the meaning of education within the socio-economic systems), family roles, service patterns and unit costs. It is of course this very variability which makes the CERI/OECD study so interesting, because it opens up the possibility of cost-effectiveness differences emerging between countries.

One of the most salient implications of the approach which we have adopted, and fully consistent with the methods employed across a range of applied economics evaluations, is the adoption of four simple "cost principles": the need for comprehensiveness, the value of exploring variations, the imperative of making valid (like-with-like) comparisons, and the numerous benefits of integrating cost findings with outcome data. These four principles were set out in this pilot study even though the inevitable data limitations of a small, local exploratory study of this kind would always make it impossible to illustrate the full application of each principle in empirical analyses.

One of the empirical tools used in the pilot study – an adaptation of the Client Service Receipt Inventory – proved useful. In research outside the education area we have employed versions of the CSRI in multi-country studies, which has helped to reveal the various tasks necessary to adapt an instrument of this kind to a mix of social, economic and organisational contexts and cultures. However, while collecting service utilisation data and attaching appropriate unit costs are tasks which should be tackled with due care and in cognisance of the underpinning conceptual and organisational frameworks, there remains scope for appropriate flexibility and adaptation in applied studies. For example, the greater the reliance on interviewer involvement the lower the need for definitive focus or target groups in the instrument development phases.

Another potential complication when conducting multi-country economic evaluations concerns the estimation and comparison of unit costings. Adjustments can of course be made using published rates for purchasing power parity, but these are not always satisfactory and numerous difficulties persist in any financial comparisons. Within-country evaluations do not generate such difficulties. There remain, of course, a number of evaluation challenges within *any* study, national or cross-national, which we have endeavoured to set out in this report.

Finally, it is important to stress the need to integrate economics perspectives and evidence with other perspectives and evidence. Economics evaluations will rarely generate enough data on their own as the basis for well-rounded decisions in the public policy area, and especially in the education field. The approach used in this pilot work emphasises the importance (and the feasibility) of such disciplinary integration.

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Appendix 3.1

Client Service Receipt Inventory

Integrated Education Study, 1996

Centre for the Economics of Mental Health (CEMH)

Personal Social Services Research Unit (PSSRU)
University of Kent at Canterbury

Please complete this schedule in interview with the child's/young person's parent(s) or main carer(s). All information will be treated in the strictest confidence.

1. Background information

1.1. Child's/young person's name ....

1.2. Date of Birth ....

1.3. Date of Interview ....

2. Accommodation

2.1. Postcode for current address (*e.g.* CT1 or SW5) ☐

2.2. How many bedrooms are there in the current accommodation? ☐

2.3. Does the child live in specialised accommodation? Yes No

If yes: please give the name of the "facility", its address and the name of the agency which manages it ....

....

2.4. Does the child live at home? Yes No

If yes: please give the tenure of accommodation (tick box)

☐ Privately rented
☐ La (Local Authority) rented
☐ Housing association rented
☐ Owner occupied
☐ Other (please describe)

2.5. How many children below the age of 16 are living in the household? ☐

2.6. Please complete the table below by entering details for all people over the age of 16 resident in the same household as the child.

Relationship to child	Age (approx.)	Occupation (include unemployed)	Hours worked per week

2.7. How many members of the house hold receive social security benefits? ☐

3. Receipt of education services

3.1. Over and above help received in their usual school, does the child receive any other education services? Please complete the table below with reference to the previous school term.

Service	Total number of contacts	Average duration per contact (hours)	Charge made for this service per contact
Individual tuition at home			
Individual tuition at an educational unit			
Additional classes			
Educational social worker			
Educational psychologist			
Special needs officer			
Other (specify)			
Other (specify)			
Other (specify)			

3.2. How many hours per week does the parent/carer spend helping the child with school work or providing support for other educational needs?

Hours: ☐

Please describe the activities undertaken. ....

....

3.3. Does the child have any aids (for example, communication device, mobility aids)? If so, please describe briefly..

....

350 3.4. Has the child been "statemented" under the 1981/1993 Education Acts? Yes No

4. Receipt of other services

4.1. Respite care service used by child during the previous school term.

Respite care service used	No. of days/hours
No. of days in hospital	days
No. of days in residential care	days
No. of days with temporary foster parents	days
No. of hours home-sitting service	hours
No. of hours outings/organised activities	hours
Other (specify)	
Other (specify)	

4.2. Other hospital in-patient services used by child during the previous school term.

Admission number	Name of hospital	Type of ward (speciality)	No. of days as in-patient
1			
2			
3			

Note An in-patient day includes an overnight stay

4.3. Other hospital services used by child during the previous school term.

OECD 1999

Service attended	No of attendances
A&E	
Other out-patient	
Day hospital	

Note A&E attendances are unplanned visits to the accident and emergency department; other out-patient attendance is defined as a short visit to medical or para-medical staff within the hospital, day hospital attendance is where the patient is expected to attend a department or ward for a half or full day and does not include an overnight stay. Examples would be minor surgery or industrial therapy

4.4. In addition to those recorded at Question 3.1, has the child used any other services.

Yes No

If yes, please enter details of all other services used by the child or by the child's carers because of the child's problems. Please complete the table with reference to the previous school term.

4.5. Which services have been particularly helpful? ....

....

4.6. Are there any other services parents/carers would like the child to receive? ....

....

Thank you

Services	Total number of contacts visits	Average duration per contact (hours)	Number of domiciliary visits
General practitioner			
Advice/counselling			
Volunteer/befriender			
Social worker			
Home care worker			
Speech therapist			
Occupational therapist			
Physiotherapist			
Orthoptist/optician			
Orthodontist/dentist			
Alternative therapists (specify)			
Self-help group			
Community consultant			
Psychologist			
Family therapy			
Psychotherapist			
Community mental handicap nurse			
Other community nurses			
Solicitor/lawyer			
Police			
SSD social club			
Voluntary organisation social club			
Drop-in centre			
Family centre			
Other (specify)			
Other (specify)			
Other (specify)			

Card 1

Services received in the previous school term

General practitioner
Advice/counselling
Volunteer/befriender
Social worker
Home care worker
Speech therapist
Occupational therapist
Physiotherapist
Orthoptist/optician
Orthodontist/dentist
Alternative therapists (specify)
Self-help group
Community consultant
Psychologist
Family therapy
Psychotherapist
Community mental handicap nurse
Other community nurse
Solicitor/lawyer
Police
SSD social club
Voluntary organisation social club
Drop-in centre
Family centre
Other (specify)

Appendix 3.2

Interview Aide Memoire for Schools

This note is for interviewers only

Copy of (disaggregated) income and expenditure accounts 1994-95 or 1995-96. 1994-95 is the *financial year* during which the original site visits were undertaken and CSRI data are collected for the Spring Term 1996. Note the accounts might run from September to July – the academic year.

Capital value of building and land. Opportunity cost (best alternative use).

Pupil and staff related activity data (cost relevant). For the integrated education school ensure, there is sufficient information to calculate the extra cost of having children with special needs in the school.

Indicators (broad or specific?) of the relative use of resources for the children in "matched" samples (we do not have these pupils' names).

Other regular inputs to the school but not appearing in the expenditure accounts. Examples might be inspections, nurses, special needs advisors or various (speech, physio) therapists.

Services provided to wider community, that is, provided to other groups or individuals, not attending the school (joint costs).

Use of other facilities not appearing in accounts (for example, swimming pool, sports centre, library sessions).

Volunteer input, or from parents.

Gifts of equipment and the like.

There also might be outstanding queries about the CSRI. Please remind heads/teachers that these forms should be completed on those pupils for which reading and maths attainment data were collected and then returned to the Personal Social Services Research Unit (PSSRU) in the pre-paid envelopes provided as soon as possible.

Appendix 3.3

Cost-Related Information for the Integrated School

Two interviews were held with key personnel at the school providing integrated education to children with special needs in one local education authority (LEA) in England. The interviews were held in January 1996 with the Finances and Resources Manager for the school and with the Special Needs Co-ordinator.

Income

Two changes occurring after the visit from OECD personnel in early 1995 are relevant to this costing exercise. First, in September 1995, the school absorbed a nearby special school into their management and organisational structure. Under the LEA policy to reduce special school places it was targeted for closure which would leave pupils with considerably greater distances to travel to school. The trial period for these arrangements (3 years) may carry significant cost implications as the fabric of the school requires a lot of maintenance and because the budget allowed the exemplar school to provide integrated education is smaller than that allocated under the special school funding. The OECD report suggests the difference will be as much as GBP 158 per year for each child with other learning difficulties and GBP 90 for children with severe learning disabilities.

The second change which may have cost implications in the future is a reorganisation of the administration department of the school to include a Business Centre, operating as a limited company. The company will manage the internally generated funds, and encourage increased generation of funds from this source. In 1994-95, resources amounting to approximately GBP 92 000 were generated and will probably rise to GBP 100 000 in the current financial year (1995-96). Income is generated mainly from letting the buildings for various functions (for example, the Conference Centre on the lower site), vending machines, the sale of school uniforms (for example, sweatshirts), and a small print shop which serves both the school and some local charities. In addition, about GBP 8 000 is raised each year as, within LMS regulations, the school runs their own bank accounts which accrue interest.

The school's budget of GBP 3.5 million per annum comprises the usual LMS components, the main one being the age-related capitation rates. About 5% of the budget comes from special needs "bonuses": for each child who has "other" or "severe learning difficulties or who has emotional and behavioural difficulties; from resources attached to statements; and from resources payable for their "enhanced resource schools" status which includes the base budget and split-site rates. The school decides how to spend these resources but the LEA acts as moderator to ensure the special needs requirements of the statements are met. The accounts used for the costing exercise do not include the recently absorbed special school. Other public funding sources come from TEC and GEST (approximately GBP 52 000 per annum). No income comes from the voluntary sector or local charities although occasional "gifts in kind" are made as a result of particular teachers' activities. Parents fund their childrens' school trips (mainly transport costs) and a hardship fund is available, otherwise all curricular-related activity is funded from the budget. Parents are asked to make no other regular contributions to their children's education.

The LMS rules state that the budget cannot be used for any purposes other than the pupil's education so the only extra-curricular events which occur at the school without an accompanying payment are those associated with the local election. Internally-generated income is retained within the school as an addition to the LMS budget and the school can decide how it is spent. The money is usually kept until the beginning of the next financial year as a cushion against expenditure cuts. It is often used to fund staff posts that would otherwise have to be cut. The remainder is bid for by each of the schools' faculties (including the Learning Support Team) at the beginning of the year.

The school has had several alterations to improve facilities for pupils with special needs. In the financial year 1994-95, and across both sites, seven sets of doors had been changed to allow wheelchair access, a toilet had been converted for use by children with disabilities at an approximate cost of GBP 13 000, and nine ramps had been fitted (ranging from ones that go over a door step to those set alongside short flights of stairs). The cost of these alterations are met by the local education authority.

The upper and lower sites together are currently valued at 5m including depreciation. This is likely to be an underestimate and the education authority are in the process of agreeing valuations for all their schools.

Expenditure

The school's budget is devolved down to each department. This includes the resources attached to children with special needs statements which are the responsibility of the special needs department.

Across the whole budget, teaching staff absorbs about 89% of the LMS total, covering 116 teaching staff, ten of whom work in the Special Needs Faculty. This proportion of total costs for staff has varied over recent years, increasing (decreasing) as the total budget is reduced (enlarged). There are 9 educational care officers (ECOs): 1.5 FTE paid from the main budget who provide general support for children with special needs; one who is paid via a recharge from a neighbouring education authority to support the education of one child from that area; and the remaining staff are "attached" to statements and allocated to specific children. Most of the ECOs get a free school meal as their duties encompass the lunch hours even though there is a lunch-time supervisor. Two nurses are attached to the school and paid for within the budget.

Support from outside the school comes from an optician, various therapists, the medical officer, educational psychologist, and a number of advisory teachers based in the LEA offices (see below).

The school was inspected by the education authority during 1994-95, at a cost to the authority of about GBP 20 000. The considerable preparation required for this inspection had to be absorbed within the school's budget.

The cost of educating a child with special needs at this school is summarised in Sub-section "Examination of cost differences" in this annex. There are, however, a number of areas of school provision where children with special needs may carry extra cost implications, but which are difficult to quantify without a much more detailed data-collection exercise.

- *Travel costs* are absorbed by the local authority, which has a legal responsibility to provide transport to and from school for children who live more than 3 miles away and for those not on a bus route. This is usually provided by a fleet of minibuses but as an indicative cost, one pupil with special needs was so disruptive that a taxi had to be employed temporarily to transport him some 25 miles each day at a cost of GBP 120 per week. An escort has now been provided for the minibus by the local authority.

- *Physical space* is often at a premium in schools. Some classes for children with special needs are provided in small groups which are located in rooms that could be used for more children. An amount is included in the capitation allowance for capital but recognition of these extra costs is not made in the special needs rates. Working in small groups may also mean greater expenditure (purchase and maintenance) of AVA equipment.
- *Furnishing and fabric* may also suffer increased wear and tear. This has not been obvious to date but the problem may escalate as the number of children with emotional and behavioural problems in mainstream schooling increases.

Special needs pupils

The special needs section of the school does not operate as a physically separate unit but is organised so that the team provides support for a number of pupils who take almost all their classes with other pupils in the school. Only occasionally are separate tuition sessions held. There is no selection procedure for special needs children but the minimum (informal) requirement is that they should be able to work on their own for at least 5-10 minutes and function independently.

For the purposes of this report, and to try to clarify the complex financing arrangements, the children with special needs have been divided into a number of groups, depending on the level of resources "attached" to them. This categorisation is not as straightforward as it could be as the system is undergoing some change.

- 330 non-statemented children have been identified and registered under the new Code of Practice as having special educational needs. No extra resources are identified for this group.
- About GBP 140 per child in extra funding comes from the local education authority for 135 children. This number is based on the "old" system of identifying children with special needs and is under review. It is likely to be replaced with a scale developed from the SATS results.
- The school provides education for 71 "statemented" children. A statemented child now has to fit one of the 11 "profiles" identified by the local authority and are funded on the basis of this categorisation. This group includes two children with severe learning difficulties (with two more applications being considered), two children with emotional and behavioural disorders, 89 "other" learning difficulties (with three or more applications in the pipeline) and 18 "mainstream" (old system) statements for mild learning disabilities or specific problems. The unit also receives GBP 2 000 for each of the 8 children who were educated at the special school but were transferred to the integrated school before September 1995 and who are funded through yet another system.

Thus, although the income accounts recognise only 58 children as "earning" extra money, these resources, plus the ERS allowances, must fund the extra education needs of 536 pupils. Many of the "registered" children, of course, do not require extra support and are catered for within the usual schoolroom teaching activities and the differentiation of syllabus taught within each class with respect to ability levels and needs. There are two exceptions to this "mixed ability" approach. First, at Year 8 (2nd year secondary school), the children with special needs do not take a second language. Second, for one hour each week about 50 children are taken out of English classes (when silent reading is timetabled) for help with reading. This is mostly for children in their first year of secondary school, but a few children from other years continue to require this support (Paired Reading, see below).

Special needs staff

A budget of approximately GBP 230 000 is devolved to the Special Needs Faculty, over 90% of which is absorbed by staff costs (none of whom provide services off-site) and which includes about GBP 3 000 for books, stationery, photocopying of teaching materials and the like. The budget for heating, lighting, administrative functions, catering and the like is held centrally.

The special needs staffing complement comprises 12.5 FTE teachers and 7.4 FTE education care officers (ECOs). Four FTE ECOs provide support for six children, five of whom receive between 8 and 18 hours support each week. One child receives full-time ECO support and 0.5 FTE of teacher time (one person). The remaining 3.4 FTE ECOs work more generally within classes attended by children with special needs.

The teaching staff (apart from one) are not attached to specific children but function in two ways. First, five teachers provide linked support to particular year groups, moving up through the school with the children so that some continuity is assured (years 7 to 11). These teachers and five others also provide subject links for the upper and lower schools in Maths, Humanities, English, Modern Languages, Technology (lower school only) and Science (upper school only). The special needs co-ordinator teaches for 0.6 FTE. (There is also an advisor and teacher linked specifically to children with emotional and behavioural disorders based in the special school building.) One teacher is in charge of the Paired Reading Scheme which recruits parent volunteers, usually about 12 in any year, to work for an hour each week with particular pupils.

Use of school buildings

The special needs unit has a base office in the lower school of two classrooms which are "off timetable" and two small offices in the upper school. At each site, one classroom is staffed by ECOs over the lunch period for all children to use as a "drop-in". There is a core of regular attenders as well pupils who drop-in less frequently.

For historical reasons, an adult community group use one of the special needs classrooms on the lower site one afternoon a week for their art group.

Wheelchair access to the upper floors is not possible on either site so classes are only timetabled on the ground floor. A very recent toilet conversion has meant pupils no longer have to make a tour round the outside of the school.

Exclusions from school are rare, but in these cases childrens' education becomes the responsibility of the LEA Home Tuition Unit. Excluded children are likely to receive only a couple of hours tuition each week. No special needs children have been expelled although some have been sent home for a couple of days until the parents come in to sort out the problem. Within their system of assertive discipline (see CERI/OECD, 1995, pp. 33-34) a "time out" room can be used where a very disruptive child will be supervised by a senior member of staff for a period of time. This is often used in preference to exclusion from school.

Use of non-school based services by Special Needs Faculty

Speech therapy should be provided to 10 of the children with statements but perhaps three actually get any services. A speech therapist should provide 2 hours support each week but in practice visits the school only half as often.

Physiotherapy is currently provided for two children, by a therapist who attends the school for an hour every two weeks. As with speech therapy, advice to ECOs so that they could maintain treatment would be most beneficial.

Occupational therapy would be provided if a strong case was made for a particular child. No pupils currently receive this service.

An *optician* provides an annual eye test for all statemented children.

The *school* CMO provides routine annual medicals for all statemented children. The Child and Family Therapy Service can be accessed by referral from the medical officer.

An *Advisory Teacher for Physical Impairments* works with the physiotherapist and occupational therapist and will visit the school to see specific children. The advisor makes about 10 visits to the school each year, lasting about an hour.

Advisory teachers for hearing impairments and for sight impairments will visit on request. There are about a dozen children with these problems in the school (not all are statemented). It was estimated that each advisor visits once each year.

The educational psychologist spends an hour with each year group, each half term (30 hours per annum) and will visit particular children and attend case reviews. Over the year s/he spends about half a day a week in school.

Transport is provided by the LEA for 12 children living approximately 20 miles away because the school is recognised as an area resource. This minibus service now has an escort on each journey (see above).

The special needs careers officer sees children individually from Year 10 upwards at least once each year, and more often if required. The Careers Service also has an office in the upper school once a week and holds individual interviews with all children. All pupils, including those with special needs, have Work Experience Placements for one week (Year 10) and Community Placements for half a day each week in Year 9.

The school has developed a good relationship with the local Further Education College where there is a Special Needs Department. Pupils often attend "taster" courses at the college.

The only outside resource used regularly is the local swimming pool where an arrangement with the primary school means two pupils and their ECOs can go swimming at no extra cost to the school.

Apart from the normal school furniture and equipment, any special equipment (laptop computers, wheelchairs etc.) are funded by the parents, the health authority, or the social services department. Often the physiotherapist and advisory teachers are instrumental in helping bids for equipment needs through the health authority bureaucracy. One pupil has recently been assessed by ACE for computer requirements and his parents are pursuing finances.

Appendix 3.4

Cost-Related Information for the Special School

Background

An interview was held with the head teacher (and followed up with telephone discussions) of a special school in the same local education authority as the integrated school. Background data were provided by other school staff.

The school has local management (LMS), but is not grant-maintained. It has been LMS for two financial years. It is the only "special" secondary-age day school in the county. The school opened in 1958. It has currently 94 pupils, the number having increased over recent years. 94 pupils is the maximum, not because of class sizes or classroom constraints, but because of dining facilities, changing rooms, and so on. All pupils are currently from the LEA, although in the past the school has had a few from other local authorities because they have been fostered in the city in which the school is located. Some changes to catchment areas may occur in the next few years because of local government reorganisation. These implications are currently not clear.

Pupils

There is no admissions policy. The local authority's view is that they buy places here and are therefore entitled to send who they want. The admissions procedure is therefore a little clouded. A common occurrence is a phone call from another school or from the Local Education Authority concerning a child suspended from school, the child having special educational needs, and the question is whether the special school can take them. The initial response is usually no, and further pressure then comes from the LEA. If the child is expected to be disruptive or too demanding, then the head teacher may continue to oppose admission. However, the LEA has the right to send anyone, although it does certainly listen to the head.

Eighty-six per cent of current pupils have moderate LDs ("other LDs"). A number are emotionally or behaviourally disturbed. The local authority profiles children as other or severe learning difficulties (OLD or SLD), or emotional and behavioural disorder (EBD). In fact the school categorises the children, but the LEA audits and if necessary moderates the categorisation. Funding is tied to the categorisation, at least in principle.

There are no physically disabled children in the school. The school may or may not take them, depending on the extent of disability. For example, the school cannot cope with soiling problems, but wheelchairs cause no difficulties. However, elsewhere in the city there is a school for physically disabled children. There are some children with visual/hearing impairments at the special school, but this is incidental to the learning difficulty.

All pupils are statemented – they all have to be in order to be at the school.

The nature of children in the school is gradually changing. In recent years the school has been educating children with more difficult behaviour. (The head teacher wonders if the self-governing schools are pushing the difficult children out. Locally this certainly looks like the pattern.) The nature of the children coming in is moving gradually from OLD to SLD. The more able but EBD pupils are not being accepted by other secondary schools, and they generate particular management problems for the special school. The school may even need to stream pupils for the first time. At the moment children are in year groups. Streaming would mean changing the year groups, but this is not seen as conducive to educational continuity or appropriate for social groupings.

Generally, the EBD are the most difficult and demanding of pupils, and therefore the most costly. This is not intrinsically because of a learning problem, but due to the children's emotional and behavioural characteristics. These children go into a class of less able pupils and often become the leaders, getting more disruptive and more difficult and influencing the others. They need a lot of staff time, staff meetings, lots of liaison with other agencies (social services, careers service, etc.).

The current breakdown (at the time of the interview) is 81 OLD, 8 EBD and 5 SLD. In April 1995 the LEA only funded four EBD children, and therefore between April and September 1995 four out of the nine new children are EBD, rejected by their secondary schools. These children should attract GBP 6 000 each in revenue for the school (or more), but the school is not in fact getting this amount. Instead, they were just given one additional teaching post.

Outside work

The school currently does no work outside the school with non-pupils, whereas in the past they have, for example offering their skills to neighbourhood comprehensive schools, particularly when they were part of a TVI cluster. Their specialist skills are now taken up quite rarely. When it happens, it may lead to the special school eventually taking the pupil, though not necessarily. It should be noted that the local authority has some residential EBD schools, but this particular school is not residential.

External services not in school budget

External services into the school which are not funded from the school budget are rare. There is one NHS speech therapist for one morning per week, working with individual pupils only - not doing group work. He/she also teaches staff to teach the pupils. The school has a "care officer" on the staff trained by the speech therapist. The school medical officer visits the school for one morning per fortnight, again for individual work, seeing children and parents.

The educational psychology service makes irregular visits, offering perhaps 12 hours per year, which the head described as utterly inadequate. The school only gets psychological expertise in the form of pupil support when they are desperate for it for an individual pupil. The service will come in and talk to staff about a case, but only rarely. The head explained that this and some other inputs are low partly because the school does not need it, given the expertise already on site. The school has no contact with the NHS psychology service, except perhaps through the educational psychologist. The school has some support, although it is irregular and minimal, from the special needs advisory service.

The careers service offers lots of help in years 9 to 11. They will interview all parents and all children, will meet regularly with careers staff of the school, and they have provided money for the careers room at the school. Approximate levels of involvement would be one hour per annum for pupils in years 9 and 10, and two hours in year 11. The TEC-schools industry link is a lot of assistance, both for staff development and material resources. Pupils get work experience, varying with respect to need, interest and availability, but it was not possible to say whether this level was any different from in mainstream schools.

There are very regular contacts with the social services department. Almost every day they have some involvement, in relation to services such as respite care or child abuse. A lot of the pupils are known to the SSD, although the head does not know how many. There is no strategic involvement with the SSD. To the head's regret there is in fact no special needs forum involving social services, housing, or the Benefits Agency.

On transport, it is no longer a right for the pupils to have transport to and from school by virtue of their learning difficulty, but half come by special bus or taxi. This percentage is being reduced all the time because of local authority expenditure constraints and because the school philosophy is that older children should be independent. The local authority would pay for bus passes for any pupil living more than 3 miles from the school, the same criterion for mainstream schools. The taxi and special bus services are arranged and paid for by the local authority, but less than 10 % of pupils travel to and from school by taxi.

Within-budget expenditures

All staff training is funded from within the school budget. The school has responsibility for internal maintenance and for fixtures and fittings. The LEA maintenance responsibility is for the external fabric and major capital; items such as central heating. This would amount to about GBP 3 000 per annum. The building is turn of the century, and used to be a girl's secondary school.

Help to parents

A lot of the parents of pupils come into the school for free advice. It may be that they do not understand a particular housing form, or they may want help with their benefits, etc. Currently, therefore, the school is very much a neighbourhood school – all pupils are from a 3-mile radius, and there is lots of parental contact. All pupils have educational planning, the parents agreeing on pupils' targets, how to help at home, etc. They see the medical officer regularly. The deputy head is in contact a lot because of child protection issues and general social issues – clothes, dinner money not paid, etc. He provides an important "social" service, but the head has to tell staff to be clear that they cannot do the Social Services Department's job for them. The head estimates that 80% of pupils are from "needy families". There are in fact very few really independent and capable parents. Unemployment is a big problem in the city and there are lots of single parent families. The ethnic make-up of pupils is pretty similar to the city as a whole, but maybe there are disproportionately fewer Asian children – the Asian culture is not seen as supportive of special education.

Costs

The accounts for the school were obtained, running from April to March, for two financial years. The 1995/96 budget covers 85 children, but they have subsequently admitted another nine children and have had some additional funding, but not the full amount. The extra funding paid only for one extra teacher.

The capital value could be roughly estimated. The school building is not worth anything as a building – it will be knocked down for residential plots – and the site might fetch about GBP 300 000.

OECD 1999

There is minimal or no parental involvement in volunteering or fundraising. There is minimal financial support through fundraising, which is perhaps not surprising for such a "needy" group of families living in an economically deprived area. There is little charitable help from elsewhere. The head has the view that the nearby school for physical disabilities and severe learning disabilities finds it easier to get charity income – it attracts more sympathy and support. At the pilot school, he said they just get "scruffy, needy pupils", and therefore it is harder to raise money for them. The two SLD schools in the city raise lots of money, not unrelated to the fact that the parents are often middle-class. The pilot school does however get occasional gifts of equipment. For example, the National Grid donated a computer, but generally such gifts are rare, and the school is usually disappointed when it asks local businesses and the community. They have a 200 Club which raises about GBP 1 000 a year, but the head is wary of the school becoming an institution which spends too much time raising money. He wants staff to spend their energies on the school. At the end of the day, the staff "have had their personalities drained from them" at school, and need a good rest, not fundraising activities. It is his view that the LEA should provide, a view shared by the LEA itself.

Integration?

Special needs have had a high profile in the authority. On integration, the head commented that "the nature of the childrens' needs currently here are better met in a specialist-setting environment". This is a widely-held view within the school. If the school staff genuinely think that a child can cope back in mainstream education (with the levels of support that are available there) then they would encourage it. Staff think the children get a better deal at the special school than they get in the present mainstream provision. But the school does not have standards of resources in science and some other subjects to meet all of the childrens' needs. However, the level of work which they do does not warrant this expensive equipment anyway.

All teachers are specialist subject-based staff. The pupils have timetables as in a regular school.

One of the head's worries regarding separate schools is the role model for children being with others with special needs. This puts them into the wrong social groups, with immature children, children who are less able. He has sympathy with this view, and can understand the argument for integration. But, on balance, he thinks that the pupils' emotional and behavioural needs, and their learning needs, would be difficult to meet in integrated settings because of the *size* of mainstream schools. To try to deal with the disadvantages of segregation, the pupils are exposed to mainstream education in the upper school – they go to a public gym, swimming pool, colleges of further education, work experience, etc. The careers service was thought to do more work in St. Martin's than in the mainstream, though this was an *impression*.

The small size of the school is important, particularly with 80% of the families being needy. An important part of the school's service is the care element, which the head felt is sometimes looked down on by some educationists, but which he sees as especially important for these children. "If the children do not feel secure they will not learn."

Out-of-class time raises another financial issue. Important times for pupils are breaks and lunchtimes. Many statements for children say "small groups", and therefore the school will not send 95 pupils into the playground together except with lots of staff and lots of supervision. The school offers organised activities such as table tennis, football, roller skating, pool, and music in one classroom. Staff and care workers supervise each of these activities, with lots of education input at the same time. Lunchtime is short because of behavioural problems, but 3 hours per week are still taken up by lunch breaks, and there is a need for extra teaching and material resources. There are 23 hours, 20 minutes of contact time plus the lunchtimes each week. The school operates like a mainstream secondary school in all other ways – which is a deliberate policy – for example, concerning movement about the school, homework, national curriculum, etc.

Appendix 3.5

Inclusive Education in England: Children's Progress

Don Labon

The following information concerning the progress in reading ability of children with statements was collected during the summer term 1996 from the ordinary secondary school (ORD) and the special school (SPE) previously visited as part of the study. Some 3% of the children ORD and all the children in SPE have formal statements of special educational need, mostly on account of moderate learning difficulties. The literacy test used most commonly was Young's Spelling and Reading Test (SPAR). While this was used with all children at SPE, in ORD some children took the McMillan New Reading Analysis either as well as or instead of the SPAR.

As the current Year 8 children in ORD had taken both tests it has been possible to calibrate the tests against one another and use the results to convert McMillan scores to their SPAR equivalents (see Appendix 3.5A). This enabled more direct comparison to be made of reading progress of children in the two schools. In instances where both tests were used, preference has been given to the SPAR results. Where the McMillan test but not the SPAR was used, the reading comprehension age has been converted to its SPAR equivalent. Reading ages are presented in years and decimals of a year.

Pupils with statements are categorised by the LEA for funding purposes, and the suffixes in the following tables signify the categories used. The letter "i" indicates that the child can be integrated without significant extra help; "m" indicates moderate learning difficulty; "s" stands for severe learning difficulty and "e" for emotional or behavioural difficulty.

Approximate comparisons of children's progress in reading as they moved up their respective schools were made on the basis of median scores in successive years and after an interval of two years. It was necessary to use median scores rather than means as some scores were outside the range of the tests used and are therefore unknown. It was possible to measure progress over one year in 53 instances in the ordinary school and 71 instances in the special school. Over a two year span, the instances were 25 and 27 respectively. Results are as follows:

	Ordinary	Special
Median progress over 1 year	0.5	0.1
Median progress over 2 years	1.2	0.5

ORD Year 8	1994	1996	Progress 1994 to 1996
BGm	5.9	6.3	0.4
NLm	6.2	< 6.0	< – 2
COm	7.0	7.0	0.0
HDm	7.2	8.4	1.2
NTi	7.7	8.7	1.0
SDm	8.2	10.8+	> 2.6
HIm	8.6	9.3	0.7
SIm	8.7	9.5	0.8
KUi	8.9	9.5	0.6

SPE Year 8	1995	1996	Progress 1995 to 1996
OBm	5.9	6.0	0.1
KCm	7.4	8.0	0.6
TCm	6.8	7.2	0.4
IDm	6.6	6.6	0.0
KHm	6.5	6.6	0.1
NOm	6.5	6.4	–0.1
EUm	6.4	< 5.9	< – 5
KXm	< 5.9	6.0	> 0.1
LNm	7.8	7.8	0.0
DOm	< 5.9	< 5.9	0.0
STm	7.5	7.3	–0.2
SXm	7.3	7.6	0.3
LXm	7.2	7.1	–0.1
DXm	6.6	7.0	0.4

ORD Year 9	1994	1995	1996	Progress 1994 to 1995	Progress 1995 to 1996	Progress 1994 to 1996
MEm	6.2	6.4		0.2		
KOm	7.8	8.1	8.9	0.3	0.8	1.1
SUm	5.9	6.4	< 5.9	0.5	< –0.5	< –0.0
SXm	7.0	7.3	6.5	0.3	–0.8	–0.5
OXm	6.6	7.8	6.4	1.2	–1.4	–0.2

SPE Year 9	1994	1995	1996	Progress 1994 to 1995	Progress 1995 to 1996	Progress 1994 to 1996
OBm		6.6	6.3		– 3	
UBm	5.9	6.5	6.6	0.6	0.1	0.7
TCm	6.8	7.3	7.4	0.5	0.1	0.6
EDm	6.6	7.0	7.4	0.4	0.4	0.8
ADm	6.2	6.3	6.0	0.1	–0.3	–0.2
TEm		7.1	7.2		0.1	
BHm	7.1	6.9	7.2	– 2	0.3	0.1
KLm		6.7	7.1		0.4	
ORm	6.1	7.1	7.1	1.0	0.0	1.0
DSm	7.5	7.9	8.8	0.4	0.9	1.3
LUm	5.9	6.5	6.4	0.6	–0.1	0.5
OXm	7.4	7.6	7.5	0.2	–0.1	0.1

ORD Year 10	1993	1994	1995	1996
AHe		8.5	8.7	> 10.8
DIe	6.1	8.1		
EMm	7.3	8.4		9.5
DNm		8.1	7.4	
EOm	7.3	7.2		8.2
KQe		7.2	7.7	9.7
QQe		7.3	8.2	8.5
NQm		6.5	6.5	8.0
BSm	7.0	8.1		10.0
USm	6.7	7.5	8.7	9.1
TTm	7.9	8.4	7.3	> 10.8
TXi	8.2	6.4		> 10.8
XXm	6.2	7.0		10.0

ORD Year 10	Progress 1993 to 1994	Progress 1994 to 1995	Progress 1995 to 1996	Progress 1993 to 1996	Progress 1994 to 1996	Progress 1993 to 1996
BHe		0.2	> 2.1		> 2.3	
DIe	2.0					
EMm	1.1				1.1	2.2
DNm		–.7				
EOm	–.1				1.0	0.9
KQe		0.5	2.0		2.5	
QQe		0.9	0.3		1.2	
NQm		0.0	1.5		1.5	
BSm	1.1				1.9	3.0
USm	0.8	1.2	0.4	2.0	1.6	2.4
TTm	0.5	–1.1	> 3.5	–0.6	> 2.4	> 2.9
TXi	–1.8				> 4.4	> 2.6
WWm	0.8				3.0	3.8

SPE Year 10	1993	1994	1995	Progress 1993 to 1994	Progress 1994 to 1995	Progress 1993 to 1995
KCs	6.3	< 5.9	6.3	> -0.4	> 0.4	0.0
DiCm	6.8	6.9	6.6	0.1	–0.3	–0.2
FCm	7.7	7.9	7.9	0.2	0.0	0.2
KEm	6.1	6.5	6.4	0.4	–0.1	0.3
DNm	7.5		9.3			1.8
ONm	6.6	7.6	7.3	1.0	–0.3	0.7
MTm	7.0	7.2	6.9	0.2	–0.3	–0.1
ETm		8.0	7.2		–0.8	
OTm		6.3	6.5		0.2	
CUm	7.4	8.7	8.4	1.3	–0.3	1.0
MBm	7.3	8.0	8.5	0.7	0.5	1.2
BCm	6.5	6.2	6.7	–0.3	0.5	0.2
DsCs	5.9	< 5.9	5.9	> -0.0	> 0.0	0.0
DbCm	7.2	7.7	8.7	0.5	1.0	1.5
HDm	6.6	6.6	6.7	0.0	0.1	0.1
MFm	9.1	9.9	9.9	0.8	0.0	0.8
NHm	7.8	8.5	8.8	0.7	0.3	1.0
ESm	6.2	6.0	6.5	–0.2	0.5	0.3
UTs	5.9	< 5.9	6.0	< -0.0	> 0.1	0.1
QTm	6.6	5.9	7.1	–0.7	1.2	0.5

ORD Year 11	1992	1993	1994	1995
DC		7.8	7.8	
MD	7.7	7.7	7.3	6.8
DD	6.1	7.4	7.7	
KI	8.1		8.5	8.2
DI		8.5		9.3
EI	6.7	7.8	7.4	
FI		6.9	6.6	
NU	6.7	8.0	8.7	
XX	7.5	8.6	9.3	

ORD Year 11	Progress 1992 to 1993	Progress 1993 to 1994	Progress 1994 to 1995	Progress 1992 to 1994	Progress 1993 to 1995	Progress 1992 to 1995
DC		0.0				
MD	0.0	–0.4	–0.5	–0.4	–0.9	–0.9
DD	1.3	0.3		1.6		
KI			–0.3	0.4		0.1
DI					0.8	
EI	1.1	–0.4		0.7		
FI		–.3				
NU	1.3	0.7		2.0		
XX	1.1	0.7		1.8		

When measured over a period of one year, and again when measured over two years, the progress of children in the ordinary school is greater than that of those in the special school; In both cases the difference in progress between children in the two schools is highly significant statistically.

(On the Kolmogorov-Smirnov test, the chi squared score for the differences in measures over one year is 9.52 and that over two year is 10.51. As the score required to achieve significance at the probability level of .01 is 9.21, the odds against differences of this order occurring by chance are greater than 100 to 1.)

While the methodology adopted here is sound to the extent that a valid reading test score is generally accepted to be the best single predictor of reading achievement on the same test in the future, in interpreting these figures it should be borne in mind that the children in the special school are generally less able than those with statements in the ordinary school.

An appropriately precise approach, given its feasibility, would be to compare the progress of pairs of children, each pair consisting of one in the ordinary school and one in the special school, with the pairs matched at the start of the study for achievement, age, ability and socio-economic class. Moreover, the results obtained would be particular to the two schools chosen and would not necessarily be replicated elsewhere. For generalisable results, several pairs of schools would have to be used.

The most than can be said with confidence on the basis of this study is that over periods of one or two years the progress in reading of the children with statements in the ordinary school, while slow, may well be better than it would have been had they been in the special school.

Appendix 3.5A

Comparison of Reading Scores on McMillan and SPAR tests

Both tests were taken, in 1994 and again in 1996, by pupils with statements currently in year 8 at the ordinary school. Thus the tests can be calibrated against one another. Consequently, the results obtained by children in other year groups who took the McMillan test but not the SPAR test can be expressed in terms of the latter. This enables all the results to be expressed as SPAR test results and facilitates comparisons with progress made by pupils at the special school, all of whom took the SPAR test annually. McMillan scores are for reading comprehension and are expressed in months; SPAR scores are for reading and are expressed in years and decimals of a year.

McMillan	SPAR
91	7.0
104	7.2
109	7.7
127	8.2
127	8.6
123	8.7
144	8.9
128	8.7
145	10.8+
145	9.3
132	9.5
147	9.5
90	6.3
90	< 6.0
107	7.0
117	8.4

Annex 4

OECD International Study

Active Life for People with Disabilities: Effective Education and Support Structures for Students with Disabilities in Integrated Settings

FRAMEWORK FOR FOCUSED VISITS

Introduction

Each country report refers to the background and basic aims and structure of the three year study of inclusive education, and outlines the procedures involved in the focused visits being undertaken during 1995 to 1997. The report also provides further information concerning the visits under consideration and refers to the inclusive education practice in the country concerned within the context of Member countries of the OECD generally.

Prevalence

Among pupils of statutory school age *prevalence* (*i.e.* percentage) of those with identified special education needs (SEN). Proportion of those with SEN currently being educated wholly or mainly within ordinary schools. Proportion being educated largely outside ordinary schools. Proportion receiving no education. Any significant variations in prevalence according to age, gender, ethnicity, disability or region.

NATIONAL PATTERN

Provision

Kinds of integrated and segregated education *provision* available to those with SEN. As before, any significant variations.

Policy

Currently valid governmental *policy* statements relevant to inclusive education. They may stem from single departments, of education, health or social welfare for example, or they may be outcomes of inter-departmental collaboration.

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Legislation

Existing *legislation* relevant to the assessment arrangements or provision for some or all people with SEN. Any variations in its applicability, *e.g.* with respect to age or disability.

Guidance

Any currently accepted relevant non-statutory *guidance* issued by government departments or by other national bodies with view endorsed by the government.

Funding

National funding for the education of those with SEN, additional to that allocated for those without special needs. Any significant variations, notably with respect to age or disability. Any differences, in amount or in matter of allocation, between funds for those within and for those outside ordinary schools.

Training

Extent to which *initial training* for all teachers includes information concerning and practice in the education of children and students with SEN. Presence of special education elements in the initial training of other professionals likely to be concerned with SEN in their work: doctors, psychologist, social workers, therapists etc. *In-service training* for teachers and other professionals requiring expertise in the field of SEN. Any training of other forms of support for non-professionals, notably parents.

Support services

Within-school external *support services*, including special school outreach; Inter-agency co-operation.

Parental and community involvement

Extent and nature of *involvement of parents* in the assessment and placement of children with special needs; Parental participation in the work of schools with respect to children with SEN. Parental and community attitudes towards inclusion. Contributions of voluntary bodies concerned with disabilities. Other forms of *community support*, e.g.; donations by charities or sponsorship by commercial organisations.

Curriculum development

Any *curriculum development* work designed to enhance educational organisation, materials, teaching methods or other support for children and students with SEN.

Evaluation

Evaluation, for example through national programmes of data collection, educational research or inspection, of the sufficiency, efficiency or effectiveness of any of the instruments referred to here. Results of such evaluation.

Future developments

Further *developments* needed. Further developments likely to occur in practice, e.g. over the next year or so.

LOCAL ARRANGEMENTS

Within the region in which the exemplar school is situated, any departures from the national pattern with regard to *prevalence, provision, policy, legislation, guidance, funding*. Local arrangements for *training, support services, parental and community involvement, curriculum development, evaluation*. *Future developments* need in the region. Further developments likely to occur in practice, *e.g.* over the next year or so.

AN EXEMPLAR SCHOOL

Basic information

School type, location, selection procedures, socio-economic catchment. numbers of children on roll, age range, ethnic mix, numbers with disabilities. Teaching and non-teaching staff numbers, including visiting support service staff. Number and qualifications of staff with responsibilities for SEN. Staff time spent with children with SEN. Any previous evaluations of the work of the school.

Funding

Amounts, sources and adequacy of funding provided for children with SEN during the current school year. Appropriateness of allocation of resources for children with SEN. Average educational cost-per-annum for the school's children with SEN, including both within-school and outside-school costs. Projected average cost-per-annum of equivalent children in the most appropriate existing special school placements. Average cost-per-annum for the school's non-disable children of the same age distribution.

Quality of work

Quality of children's work and relationships, as observed, with particular reference to those with disabilities. Contributions of teachers' preparation, methods, materials and evaluation to the standards achieved. If children with disabilities have been observed in a special school, quality of their work and relationships by comparison whit that of equivalent children in the ordinary school, with comment on possible reasons for any similarities and differences observed.

Accomodation

Accessibility and suitability, particularly with reference to the education of children with SEN. Any variations with respect to subject taught, age, gender or disability. Appropriateness of any accommodation designated specifically for children with SEN.

Resources

Variations in suitability with regard to subject taught, age, gender or disability. Quality, availability and usage of audio-visuals aids, reprographics, information technology, consumables, apparatus and library stock. Use of resources outside the school.

Staff development

School's systems of induction and of appraisal of performance of staff. Extent to which teaching and non-teaching staff have opportunities for in-service education and training (INSET) relevant to the education of children with SEN. Effectiveness of any such INSET undertaken. Extent of need for further INSET.

Curriculum

Accessibility for children with SEN. Nature and effectiveness of any modifications for children with SEN, with particular reference to any discontinuities or changes of subject emphasis that modification may have produced. Curriculum policy, documentation, breadth, balance, continuity. Extent of which the curriculum prepares children for everyday life, for work or for the next phase of their education.

Management

Management of the school. Involvement of the governing body. Implementation of any whole school policy for children with SEN. Organisation of teaching responsibilities. Balance between class teaching and subject specialist teaching. Arrangements for consultation between teachers.

Organisation

Allocation of children to mixed ability teaching groups, streams, bands, sets etc.; Effectiveness of withdrawal or in-class support arrangements. Arrangements for homework. Effectiveness of links between different sections of the school, *e.g.* between age groups. Arrangements for guidance concerning any curriculum options open to children.

Assessment

School's procedures for assessing children's abilities on entry and for assessing progress thereafter, with particular reference to SEN. Effectiveness of these assessment procedures. progress made by children following entry to the school; appropriateness of the progress, in relation to ability; any differences in progress between ability groups, year groups or school subjects. Extent of assessment across subjects. Assessment of social development. Standards achieved in external examinations. Use of progress data as a basis for curriculum planning. Effectiveness of periodic review procedures for children with disabilities.

Pastoral care

Effectiveness of school's pastoral care arrangements, particularly those for children with SEN. Mechanisms for promoting positive behaviour among children and for solving behaviour problems.

Liaison

School's liaison with staff of external support services run by the LEA: special education advisers, educational psychologists, education social workers, careers officers. Nature, extent and effectiveness of these agents' work with the school's children with SEN. Similarly, liaison with and work of staff of social services and health agencies. Links with other institutions (pre-school, school, post-compulsory education, employment). Reference to any INSET offered by this school to staff of other institutions, as well as any outreach provision. Parental involvement. Methods of conveying progress assessment results to parents, employers and others, *e.g.* through publication of results.

Conclusions

The school's effectiveness and efficiency in enhancing the academic, social and vocational progress of the children on roll, with particular refiner to inclusive education for children with SEN. Factors influencing effectiveness and efficiency.

References

Personnel

Dates of the visits. Names and roles of the people involved. Author of report, and date report completed.

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Further reading

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